

---

# SCIENCE

Author Index to Volume 209

July–September 1980

**Editorial Board**

RICHARD E. BALZHISER  
PETER BELL  
WALLACE S. BROECKER  
BRYCE CRAWFORD, JR.  
E. PETER GEIDUSCHEK  
EMIL W. HAURY  
SALLY G. KOHLSTEDT  
CLEMENT L. MARKERT  
MANCUR OLSON

FRANK W. PUTNAM  
PETER H. RAVEN  
BRYANT W. ROSSITER  
VERA C. RUBIN  
MAXINE F. SINGER  
WILLIAM P. SLICHTER  
PAUL E. WAGGONER  
F. KARL WILLENBROCK  
FREDERIC G. WORDEN

WILLIAM D. CAREY  
*Publisher*

HANS NUSSBAUM  
*Business Manager*

PHILIP H. ABELSON  
*Editor*

EARL J. SCHERAGO, *Advertising Director*

Published by the

American Association for the Advancement of Science

1515 Massachusetts Avenue, NW, Washington, D.C. 20005

Printed in Richmond, Virginia, by William Byrd Press

Copyright 1980 by the American Association for the Advancement of Science

---



## A

- Abel, Keith H. See Fruchter, Jonathan S.  
 Abelson, John: A revolution in biology. v209 p1319-1321 19 Sep 80. See also Wallace, R. Bruce.  
 Abelson, Philip H.: Scientific communication. v209 p60-62 4 July 80. (editorials): *The Global 2000 Report*. v209 p761 15 Aug 80. Monitoring volcanism. v209 p343 18 July 80. Views from Paris. v209 p545 1 Aug 80.  
 Abolin, Craig R.; Tozer, Thomas N.; Craig, J. Cyerman; Gruenke, Larry D.: C-Gluconation of the acetylenic moiety of ethchlorvynol in the rabbit. v209 p703-704 8 Aug 80.  
 Aden, David P. See Knowles, Barbara B.  
 Adler, Norman T. See Shapiro, Bernard H.  
 Aiello, Annette. See Silberglied, Robert E.  
 Alkon, Daniel L. See Crow, Terry J.  
 Allen, Leland C.: Multiyear funding authorization (letter). v209 p1069 5 Sep 80.  
 Alperin, Jonathan and Mac Lane, Saunders: Mathematical "invasion" (letter). v209 p444 25 July 80.  
 Amsel, Abram. See Chen, Jaw-Sy.  
 Anders, Edward. See Hayatsu, Ryoichi.  
 Anders, Edward. See Whittaker, A. Greenville.  
 Anderson, George M. See Pearson, David E.  
 Aneshansley, Daniel J. and Eisner, Thomas: Digital readouts on television pictures (letter). v209 p1472 26 Sep 80.  
 Arceci, Robert J. and Gross, Paul R.: Histone gene expression: progeny of isolated early blastomeres in culture make the same change as in the embryo. v209 p607-609 1 Aug 80.  
 Armelagos, George J. See Bassett, Everett J.  
 Armstrong, W. McD. See O'Doherty, J.  
 Arvidson, Kristina and Friberg, Ulf: Human taste: response and taste bud number in fungiform papillae. v209 p807-808 15 Aug 80.  
 Astrachan, David I. See Davis, Michael.  
 Atkinson, Richard C.: Environmental regulation (editorial). v209 p969 29 Aug 80.  
 Attallah, A. M.; Yeatman, T. J.; Noguchi, P. D.; Johnson, J. B.: Antibody-dependent cell-mediated cytotoxicity: detection by automated flow cytometry with ultramicro techniques. v209 p404-406 18 July 80.  
 Auerbach, Stanley I. See Trabalka, John R.  
 Axel, Richard. See Pellicer, Angel.  
 Axelrod, Julius. See Hirata, Fusao.

## B

- Backer, J. M. and Weinstein, I. B.: Mitochondrial DNA is a major cellular target for a dihydrodiol-epoxide derivative of benzo[a]pyrene. v209 p297-299 11 July 80.  
 Balch, W. E. See Fox, G. E.  
 Bamberger, Joan: review of *Brazil*, edited by Maxine L. Margolis and William E. Carter. v209 p386-387 18 July 80.  
 Banker, Gary A.: Trophic interactions between astroglial cells and hippocampal neurons in culture. v209 p809-810 15 Aug 80.  
 Barker, Jeffery L. See Mathers, David A.  
 Barker, W. C. See Dayhoff, M. O.  
 Barnes, David E. See Walker, Don W.  
 Bartus, Raymond T.; Dean, Reginald L.; Goas, J. Allen; Lippa, Arnold S.: Age-related changes in passive avoidance retention: modulation with dietary choline. v209 p301-303 11 July 80.  
 Bassett, Everett J.; Keith, Margaret S.; Armelagos, George J.; Martin, Debra L.; Villanueva, Antonio R.: Tetracycline-labeled human bone from ancient Sudanese Nubia (A.D. 350). v209 p1532-1534 26 Sep 80.  
 Bastian, Joseph and Helligberg, Walter: Phase-sensitive midbrain neurons in *Eigenmannia*: neural correlates of the jamming avoidance response. v209 p828-831 15 Aug 80.  
 Baxter, John D. See Mendez, Bernadita. See also Owerbach, David.

- Beauchamp, Raymond H. See Fruchter, Jonathan S.  
 Beckemeyer, Elizabeth F. and Lea, Arden O.: Induction of follicle separation in the mosquito by physiological amounts of ecdysterone. v209 p819-821 15 Aug 80.  
 Beer, John J.: review of *The Origins and Early Development of the Heavy Chemical Industry in France*, by John Graham Smith. v209 p916-917 22 Aug 80.  
 Behrendt, John C.; Drewry, David J.; Janowski, Edward; Grim, Muriel S.: Aeromagnetic and radio echo ice-sounding measurements show much greater area of the Dufek intrusion, Antarctica. v209 p1014-1017 29 Aug 80.  
 Bell, Bruce M. See Haugh, Bruce N.  
 Benedetto, A. See Santoro, M. G.  
 Berg, P. See Mulligan, R. C.  
 Berger, W. H. See Wefer, G.  
 Berkinblit, Michael B. See Fuskon, Olga I.  
 Bernstein, Ilene L. and Sigmund, Ronald A.: Tumor anorexia: a learned food aversion? v209 p416-418 18 July 80.  
 Besmann, Theodore M. and Olszewski, Mitchell: Power wheeling (letter). v209 p966 29 Aug 80.  
 Bigger, C. A. H.; Tomaszewski, J. E.; Dipple, A.; Lake, R. S.: Limitations of metabolic activation systems used in vitro tests for carcinogens. v209 p503-505 25 July 80.  
 Black, C. C. See Gerwick, B. C.  
 Blackwell, B.-N. See Lijinsky, W.  
 Blair, Seth S. See Weisblat, David A.  
 Blakemore, R. See Fox, G. E.  
 Blattner, Frederick R. See Liu, Chih-Ping.  
 Blattner, Frederick R. See Newell, Nanette.  
 Blattner, Frederick R. See Tucker, Philip W.  
 Bludman, Sidney A.: review of *General Relativity and Gravitation*, edited by A. Held. v209 p1234 12 Sep 80.  
 Blume, Gary. See Koenig, Harold.  
 Bock, Otmär L. See Oman, Charles M.  
 Bohmlalk, John F. and Fuller, Gerald M.: Plasmalogens are synthesized by primary cultures of rat hepatocytes. v209 p408-410 18 July 80.  
 Bonen, L. See Fox, G. E.  
 Borchardt, Ronald T.: review of *Protein Methylation*, by Woon Ki Paik and Sangduk Kim. v209 p385-386 18 July 80.  
 Borgida, Eugene: review of *Progress in Social Psychology*. v209 p1509 26 Sep 80.  
 Boulding, Kenneth E.: The next 100 years? (editorial). v209 p19 4 July 80.  
 Bowers, W. S. and Nishida, R.: Juvocimenes: potent juvenile hormone mimics from sweet basil. v209 p1030-1032 29 Aug 80.  
 Bowman, Charles and Tedeschi, Henry: Electrophoretic injection of a fluorescent dye into giant mitochondria and mitoplasts. v209 p1251-1252 12 Sep 80.  
 Boykin, Joseph V., Jr.; Eriksson, Elov; Sholley, Milton M.; Pittman, Roland N.: Histamine-mediated delayed permeability response after scald burn inhibited by cimetidine or cold-water treatment. v209 p815-817 15 Aug 80.  
 Braginsky, Vladimir B.; Vorontsov, Yuri I.; Thorne, Kip S.: Quantum nondemolition measurements. v209 p547-557 1 Aug 80.  
 Branscomb, Lewis M.: Needed: conviction to match our science (editorial). v209 p641 8 Aug 80.  
 Briant, James K. See Fruchter, Jonathan S.  
 Briley, M. S.; Langer, S. Z.; Raisman, R.; Sechter, D.; Zarifian E.: Tritiated imipramine binding sites are decreased in platelets of untreated depressed patients. v209 p303-305 11 July 80.  
 Brinkhurst, R. O.: review of *Pollution Ecology of Estuarine Invertebrates*, edited by C. W. Hart, Jr., and Samuel L. H. Fuller. v209 p586 1 Aug 80.  
 Broad, William J. (news and comment): Jordanian accused of plagiarism quits job. v209 p886-887 22 Aug 80. Jordanian denies he pirated papers. v209 p249 11 July 80. Ma Bell eyes new markets. v209 p663-666, 668 8 Aug 80. Ma Bell losing grip on old

- markets. v209 p787, 789-790 15 Aug 80. NAS panel downgrades radiation risks. v209 p887 22 Aug 80. Soviet scientist misses U.S. parley. v209 p886 22 Aug 80.  
 Bromley, D. Allan: Physics. v209 p110-121 4 July 80.  
 Bronstein, D. A.: Love Canal and legal precedent (letter). v209 p1470 26 Sep 80.  
 Brosius, Jürgen. See Ullrich, Axel.  
 Brown, Lester R.: Karl Marx was a city boy (editorial). v209 p1187 12 Sep 80.  
 Brown, O. B.; Bruce, J. G.; Evans, R. H.: Evolution of sea surface temperature in the Somali basin during the southwest monsoon of 1979. v209 p595-597 1 Aug 80.  
 Bruce, J. G. See Brown, O. B.  
 Brunner, Hans R. See Hatzinikolaou, Peter.  
 Buchwalder, A. See Corden, J.  
 Buchweitz, Ellen; Sinha, Arabinda K.; Weiss, Harvey R.: Cerebral regional oxygen consumption and supply in anesthetized cat. v209 p499-501 25 July 80.  
 Bunick, Gerard J. See Mardian, James K. W.  
 Bunney, Benjamin S. See Grace, Anthony A.  
 Burks, Jack S.; DeVald, B. L.; Jankovsky, Lynn D.; Gerdes, John C.: Two coronavirus isolates from central nervous system tissue of two multiple sclerosis patients. v209 p933-934 22 Aug 80.  
 Butler, Marsha. See Rosenkranz, Herbert S.  
 Buzas, M. A. and Culver, S. J.: Foraminifera: distribution of provinces in the western North Atlantic. v209 p687-689 8 Aug 80.

## C

- Campbell, Carlos C. See Nguyen-Dinh, Phuc.  
 Cannon, William C. See Fruchter, Jonathan S.  
 Carey, William D.: Science: its place in AAAS. v209 p24-25 4 July 80.  
 Carlson, Christopher T. See Maresca, Joseph W., Jr.  
 Carrez, Danièle. See Gallien-Lartigue, Odette.  
 Carroll, C. Ronald and Hoffman, Carol A.: Chemical feeding deterrent mobilized in response to insect herbivory and counteradaptation by *Epilachna tredecimnotata*. v209 p 414-416 18 July 80.  
 Carroll, P. Thomas. See Kevles, Daniel J.  
 Caruba, G. See Santoro, M. G.  
 Carter, Luther J. (news and comment): Energy standards for buildings face delay. v209 p784-785, 787 15 Aug 80. *Global 2000 Report*: vision of a gloomy world. v209 p575-576 1 Aug 80. Harvard nuclear engineer to chair the NRC. v209 p477 25 July 80. Industrial productivity and the "soft sciences." v209 p476-477 25 July 80. Navy considers scuttling old nuclear subs. v209 p1495-1497 26 Sep 80. No veto for states on radwaste sites. v209 p788 15 Aug 80. Organic framing becomes "legitimate." v209 p254-256 11 July 80. Phosphate: debate over an essential resource. v209 p372-374, 376 18 July 80. Reversals for Carter energy legislation. v209 p477 25 July 80.  
 Carter-Saltzman, Louise: Biological and sociocultural effects on handedness: comparison between biological and adoptive families. v209 p1263-1265 12 Sep 80.  
 Cassens, Geraldine; Roffman, Mark; Kuruc, Alvin; Orsulak, Paul J.; Schildkraut, Joseph J.: Alterations in brain norepinephrine metabolism induced by environmental stimuli previously paired with inescapable shock. v209 p1138-1140 5 Sep 80.  
 Caughey, W. S. See Zinkham, W. H.  
 Cerva, Lubor: *Naegleria fowleri*: trimethoprim sensitivity. v209 p1541 26 Sep 80.  
 Chadam, J. See Haase, C. S.  
 Chaleff, Deborah T. See Roeder, G. Shirleen.  
 Chambon, P. See Corden, J.  
 Chandlee, George O. See Cisne, John L.  
 Chang, K.-P.: Human cutaneous leishmania in a mouse macrophage line: propagation and isolation of intracellular parasites. v209 p1240-1242 12 Sep 80.

- Chang, William Y. B. and Moll, Russell A.: Prediction of hypolimnetic oxygen deficits: problems of interpretation (technical comment). v209 p721-722 8 Aug 80.
- Chen, H. R. See Dayhoff, M. O.
- Chen, Jaw-Sy and Amsel, Abram: Recall (versus recognition) of taste and immunization against aversive taste anticipations based on illness. v209 p831-833 15 Aug 80.
- Chen, K. N. See Fox, G. E.
- Cherfas, Jeremy Jon: Signals for food: reinforcers or informants? v209 p1552-1553 26 Sep 80.
- Chou, C.-K.; Guy, A. W.; Foster, K. R.; Galambos, R.; Justesen, D. R.: Holographic assessment of microwave hearing (technical comment). v209 p1143-1144 5 Sep 80.
- Chubin, Daryl E. See Porter, Alan L.
- Cisne, John L.; Chandless, George O.; Rabe, Bruce D.; Cohen, Jill A.: Geographic variation and episodic evolution in an Ordovician trilobite. v209 p925-927 22 Aug 80.
- Clark, Susanne Bennett. See Clark, W. Crawford.
- Clark, W. Crawford and Clark, Susanne Bennett: Pain responses in Nepalese porters. v209 p410-412 18 July 80.
- Cobler, Richard and Dymond, Jack: Sediment trap experiment on the Galapagos spreading center, Equatorial Pacific. v209 p801-803 15 Aug 80.
- Codispoti, L. A. See Smith, S. L.
- Cofe, Wesley R., III. See Schryer, David R.
- Cohen, Donald J. See Pearson, David E.
- Cohen, Jill A. See Cisne, John L.
- Cohen, Robert M. See Kalin, Ned H. See also Risch, Samuel C.
- Collins, William E. See Nguyen-Dinh, Phuc.
- Conde, M. F. See Levings, C. S., III.
- Connolly, Terry. See Porter, Alan L.
- Cook, Gary L. See Terman, David S.
- Corden, J.; Wasyluk, B.; Buchwalder, A.; Sassone-Corsi, P.; Kedinger, C.; Chambon, P.: Promoter sequences of eukaryotic protein-coding genes. v209 p1406-1414 19 Sep 80.
- Coren, Elaine. See Frey, Allan H.
- Cornett, R. J. and Rigler, F. H.: Prediction of hypolimnetic oxygen deficits: problems of interpretation (technical comment). v209 p722-723 8 Aug 80.
- Costa, Max and Mollenhauer, Hilton H.: Carcinogenic activity of particulate nickel compounds is proportional to their cellular uptake. v209 p515-517 25 July 80.
- Crabbé, Pierre; Diczfalusy, Egon; Djerassi, Carl: Injectable contraceptive synthesis: an example of international cooperation. v209 p992-994 29 Aug 80.
- Craig, J. Cymerman. See Abolin, Craig R.
- Crandall, M. S. See Tewksbury, J. G.
- Crane, W. E. See Tewksbury, J. G.
- Creel, Donnell; Garber, Sharon R.; King, Richard A.; Witkop, Carl J., Jr.: Auditory brainstem anomalies in human albinos. v209 p1253-1255 12 Sep 80.
- Cromartie, Eugene. See O'Shea, Thomas J.
- Crone, A. J. See Zoback, M. D.
- Crow, Janet D. See Kakunaga, Takeo.
- Crow, Terry J. and Alkon, Daniel L.: Associative behavioral modification in *Hermisenda*: cellular correlates. v209 p412-414 18 July 80.
- Culliton, Barbara J.: Continuing confusion over Love Canal (news and comment). v209 p1002-1003 29 Aug 80.
- Culver, S. J. See Buzas, M. A.
- D**
- Dabrowski, Halina. See Estep, Marilyn F.
- D'Andrea, Alan D. See Haseltine, William A.
- Daniel, J. Leland See Fruchter, Jonathan S.
- Daniels, David W. See Nelson-Rees, Walter A.
- Dardiri, Amid H. See Smith, Alvin W.
- David, Edward E., Jr.: Industrial research in America: challenge of a new synthesis. v209 p133-139 4 July 80.
- Davie, Joseph M. See Lacy, Paul E.
- Davis, Bernard D.: Frontiers of the biological sciences. v209 p78-89 4 July 80.
- Davis, Hasker P. See Squire, Larry R.
- Davis, John C. and Harbaugh, John W.: Oil and gas in offshore tracts: inexactness of resource estimates prior to drilling (technical comment). v209 p1047-1048 29 Aug 80.
- Davis, Mark M.; Kim, Stuart K.; Hood, Leroy E.: DNA sequences mediating class switching in  $\alpha$ -immunoglobulins. v209 p1360-1365 19 Sep 80.
- Davis, Michael; Astrachan, David I.; Kass, Elizabeth: Excitatory and inhibitory effects of serotonin on sensorimotor reactivity measured with acoustic startle. v209 p521-523 25 July 80.
- Davis, Miryam M. See Dinges, David F.
- Davis, Ronald W. See Scherer, Stewart.
- Dayhoff, M. O.; Schwartz, R. M.; Chen, H. R.; Hunt, L. T.; Barker, W. C.; Orcutt, B. C.: Nucleic acid sequence bank (letter). v209 p1182 12 Sep 80.
- De Maeyer, Edward. See Gallien-Lartigue, Odette.
- De Maeyer-Guignard, Jaqueline. See Gallien-Lartigue, Odette.
- de Sostoa, Anne. See Dörner, Marianne H.
- de Sousa, Maria. See Dörner, Marianne H.
- Dean, Reginald L. See Bartus, Raymond T.
- DePaolo, Donald J.: Sources of continental crust: neodymium isotope evidence from the Sierra Nevada and Peninsular Ranges. v209 p684-687 8 Aug 80.
- Depicker, Ann. See Zambryski, Patricia.
- Desch, M. D. See Kaiser, M. L.
- DeVald, B. L. See Burks, Jack S.
- DiBerardino, Marie A. See Hoffner, Nancy J.
- Diczfalusy, Egon. See Crabbé, Pierre.
- Dietrich, W. Dalton. See Kontos, Hermes A.
- Dingell, John D.: Animal feeds: effect of antibiotics (letter). v209 p1069 5 Sep 80.
- Dinges, David F.; Davis, Miryam M.; Glass, Penny: Fetal exposure to narcotics: neonatal sleep as a measure of nervous system disturbance. v209 p619-621 1 Aug 80.
- Dipple, A. See Bigger, C. A. H.
- Djerassi, Carl. See Crabbé, Pierre.
- Doner, Jonathan F. See Lappin, Joseph S.
- Doolittle, Russell. See Simon, Melvin.
- Doremus, Robert H.: Technical "notations" (letter). v209 p340 18 July 80.
- Dörner, Marianne H.; Silverstone, Allen; Nishiyama, Koji; de Sostoa, Anne; Munn, Gwyneth; de Sousa, Maria: Ferritin synthesis by human T lymphocytes. v209 p1019-1021 29 Aug 80.
- Dozy, Andree M. See Kan, Yuet Wai.
- Drake, Charles L. See Wetherill, George W.
- Drake, Michael J. See Feierberg, Michael A.
- Dran, J. C.; Maurette, M.; Petit, J. C.: Radioactive waste storage materials: their  $\alpha$ -recoil aging. v209 p1518-1520 26 Sep 80.
- Drazen, Jeffrey M. See Slutsky, Arthur S.
- Dresdner, Karl. See Lee, Chin O.
- Drewry, David J. See Behrendt, John C.
- Duce, R. A.; Unni, C. K.; Ray, B. J.; Prospero, J. M.; Merrill, J. T.: Long-range atmospheric transport of soil dust from Asia to the tropical North Pacific: temporal variability. v209 p1522-1524 26 Sep 80.
- Dull, Thomas J. See Ullrich, Axel.
- Düing, W.; Molinari, R. L.; Swallow, J. C.: Somali Current: evolution of surface flow. v209 p588-590 1 Aug 80.
- Dumond, Don E.: The archeology of Alaska and the peopling of America. v209 p984-991 29 Aug 80.
- Dumont, Allan E.: Protein secretion by the pancreas (technical comment). v209 p1553-1554 26 Sep 80.
- Duncan, Joyce A. See Savoy-Moore, Ruth T.
- Dyer, T. A. See Fox, G. E.
- Dymond, Jack. See Cobler, Richard.
- E**
- Easter, Stephen S., Jr.: review of *The Ecology of Vision*, by J. N. Lythgoe. v209 p1508-1509 26 Sep 80.
- Ehrlinger, J. See Mooney, H. A.
- Eimas, Peter D. and Miller, Joanne L.: Contextual effects in infant speech perception. v209 p1140-1141 5 Sep 80.
- Eisner, Thomas. See Aneshansley, Daniel J.
- Ekman, Paul: Asymmetry in facial expression (technical comment). v209 p833-834 15 Aug 80.
- Elachi, Charles: Spaceborne imaging radar: geologic and oceanographic applications. v209 p1073-1082 5 Sep 80.
- Ellis, Earl F. See Kontos, Hermes A.
- Enright, J. T.: Temporal precision in circadian systems: a reliable neuronal clock from unreliable components? v209 p1542-1545 26 Sep 80.
- Erikson, Robert L. See Fruchter, Jonathan S.
- Eriksson, Elof. See Boykin, Joseph V., Jr.
- Erol, Oguz. See Kraft, John C.
- Escoffier, Jeffrey; Malyon, Alan; Morin, Stephen; Raphael, Sharon: Homophobia: effects on scientists (letter). v209 p340 18 July 80.
- Estep, Marilyn F. and Dabrowski, Halina: Tracing food webs with stable hydrogen isotopes. v209 p1537-1538 26 Sep 80.
- Estrin, Thelma: Women engineers (letter). v209 p636 8 Aug 80.
- Etzioni, Amitai: Reindustrialization of America (editorial). v209 p863 22 Aug 80.
- Evans, John C. See Fruchter, Jonathan S.
- Evans, R. H. See Brown, O. B.
- Evered, Mark D. See Tepperman, Barry L.
- Eyman, L. Dean. See Trabalka, John R.
- F**
- Fairbanks, Richard G. and Wiebe, Peter H.: Foraminifera and chlorophyll maximum: vertical distribution, seasonal succession, and paleoceanographic significance. v209 p1524-1526 26 Sep 80.
- Fallon, John T. See Khaw, Ban An.
- Farabaugh, Philip J. See Roeder, G. Shirleen.
- Farber, Jorge; Marks, Gerald A.; Roffwarg, Howard P.: Rapid eye movement sleep PGO-type waves are present in the dorsal pons of the albino rat. v209 p615-617 1 Aug 80.
- Farley, D. T.: review of *Wave Instabilities in Space Plasmas*, edited by Peter J. Palmadesso and Konstantinos Papadopoulos. v209 p490 25 July 80.
- Feilbman, W. A. and Klingesmith, D. A., III: Saturn's E ring revisited. v209 p277-279 11 July 80.
- Feierberg, Michael A. and Drake, Michael J.: The meteorite-asteroid connection: the infrared spectra of eucrites, shergottites, and Vesta. v209 p805-807 15 Aug 80.
- Feinn, D. See Haase, C. S.
- Feldman, Anatoly G. See Fukson, Olga I.
- Feyerabend, Paul: Galileo's observations (letter). v209 p544 1 Aug 80.
- Fioux, M. See Luyten, J. R.
- Fink, Gerald R. See Roeder, G. Shirleen.
- Finke, Edward H. See Lacy, Paul E.
- Fliandermeyer, Robert R. See Nelson-Rees, Walter A.
- Fleming, W. James, III. See O'Shea, Thomas J.
- Foster, K. R. See Chou, C.-K.
- Fox, G. E.; Stackebrandt, E.; Hespell, R. B.; Gibson, J.; Maniloff, J.; Dyer, T. A.; Wolfe, R. S.; Balch, W. E.; Tanner, R. S.; Magrum, L. J.; Zablen, L. B.; Blakemore, R.; Gupta, R.; Bonen, L.; Lewis, B. J.; Stahl, D. A.; Luhrs, K. R.; Chen, K. N.; Woese, C. R.: The phylogeny of prokaryotes. v209 p457-463 25 July 80.
- Frankel, Barbara J. See Norman, Anthony W.
- Fredberg, Jeffrey J. See Slutsky, Arthur S.
- Freeman, Gary: review of *Maternal Effects in Development*, edited by D. R. Newth and M. Balls. v209 p1236 12 Sep 80.
- Frey, Allan H. and Coren, Elaine: Holographic assessment of microwave hearing (technical comment). v209 p1144-1145 5 Sep 80.
- Friberg, Ulf. See Arvidson, Kristina.



- Frost, Bruce W.: review of *Zoogeography and Diversity of Plankton*, edited by S. van der Spoel and A. C. Pierrot-Bults. v209 p1112-1125 Sep 80.
- Fruchter, Jonathan S.; Robertson, David E.; Evans, John C.; Olsen, Khris B.; Lepel, Edward A.; Laul, Jagdish C.; Abel, Keith H.; Sanders, Ronald W.; Jackson, Peter O.; Wogman, Ned S.; Perkins, Richard W.; Van Tuyl, Harold H.; Beauchamp, Raymond H.; Shade, John W.; Daniel, J. Leland; Erikson, Robert L.; Sehmel, George A.; Lee, Richard N.; Robinson, Alfred V.; Moss, Owen R.; Briant, James K.; Cannon, William C.: Mount St. Helens ash from the 18 May 1980 eruption: chemical, physical, mineralogical, and biological properties. v209 p1116-1125 5 Sep 80.
- Fukson, Olga I.; Berkinblit, Michael B.; Feldman, Anatoly G.: The spinal frog takes into account the scheme of its body during the wiping reflex. v209 p1261-1263 12 Sep 80.
- Fuller, Gerald M. See Bohmfalk, John F.
- Fuller, Ray W. and Hemrick-Luecke, Susan: Long-lasting depletion of striatal dopamine by a single injection of amphetamine in iprindole-treated rats. v209 p305-307 11 July 80.
- Fustfeld, Herbert I.: The bridge between university and industry (editorial). v209 p221 11 July 80.
- G**
- Gabay-Laughnan, S. J. See Levings, C. S., III.
- Gage, Stephen J.: Love Canal chromosome study (letter). v209 p752, 754 15 Aug 80.
- Galambos, R. See Chou, C.-K.
- Gallant, A. J. See Hoff, R. M.
- Gallien-Lartigue, Odette; Carrez, Danièle; De Maeyer, Edward; De Maeyer-Guignard, Jacqueline: Strain dependence of the anti-proliferative action of interferon on murine erythroid precursors. v209 p292-293 11 July 80.
- Ganapathy, R.: A major meteorite impact on the earth 65 million years ago: evidence from the Cretaceous-Tertiary boundary clay. v209 p921-923 22 Aug 80.
- Garaci, E. See Santoro, M. G.
- Garber, Sharon R. See Creel, Donnell.
- Garcia-Buñuel, Luis: Dopamine auto- and postsynaptic receptors: possible interference by gallamine (technical comment). v209 p720 8 Aug 80.
- Gavras, Haralambos. See Hatzinikolaou, Peter.
- Gavras, Irene. See Hatzinikolaou, Peter.
- Geffer, Malcolm L. See Proudfoot, Nicholas J.
- Gelbard, Harris A.; Stern, Paula H.; U'Prichard, David C.:  $\alpha_2$ ,  $\alpha_2$ -dihydroxyvitamin D<sub>3</sub> nuclear receptors in the pituitary. v209 p1247-1249 12 Sep 80.
- Gerdes, John C. See Burks, Jack S.
- Gerwick, B. C.; Ku, S. B.; Black, C. C.: Initiation of sulfate activation: a variation in *C<sub>4</sub>* photosynthesis plants. v209 p513-515 25 July 80.
- Giacconi, Riccardo and Tananbaum, Harvey: The Einstein Observatory: new perspectives in astronomy. v209 p865-876 22 Aug 80.
- Giannetti, M. See Nogge, G.
- Gibson, J. See Fox, G. E.
- Gingeras, Thomas R. and Roberts, Richard J.: Steps toward computer analysis of nucleotide sequences. v209 p1322-1328 19 Sep 80.
- Glass, Norman R.: review of *Effects of Acid Precipitation on Terrestrial Ecosystems*, edited by T. C. Hutchinson and M. Havas. v209 p384-385 18 July 80.
- Glass, Penny. See Dinges, David F.
- Goas, J. Allen. See Bartus, Raymond T.
- Gold, Paul E. and Sternberg, Debra B.: Neurobiology of amnesia (technical comment). v209 p837 15 Aug 80.
- Goldberg, Itzhad D.; Stemerman, Michael B.; Handin, Robert I.: Vascular permeation of platelet factor 4 after endothelial injury. v209 p611-612 1 Aug 80.
- Goldsmith-Spoegler, Christina M. See Grimes, Gary W.
- Goldstone, Alfred. See Koenig, Harold.
- Gonda, Matthew A. See Hsu, Yu-Chih.
- Gonella, J. See Luyten, J. R.
- Goodman, Howard M. See Zambryski, Patricia.
- Gorenstein, Shirley. See Pollard, Helen Perlstein.
- Gottlieb, L. D.: review of *Polyploidy*, edited by Walter H. Lewis. v209 p1507-1508 26 Sep 80.
- Grace, Anthony A.; Skirboll, Lana R.; Bunney, Benjamin S.: Dopamine auto- and postsynaptic receptors: possible interference by galamine (technical comment). v209 p721 8 Aug 80.
- Grant, P. R.: review of *Some Adaptations of Marsh-Nesting Blackbirds*, by Gordon H. Orians. v209 p682-683 8 Aug 80.
- Gray, Alane. See Ullrich, Axel.
- Greeder, Glenn A. and Milner, J. A.: Factors influencing the inhibitory effect of selenium on mice inoculated with Ehrlich ascites tumor cells. v209 p825-827 15 Aug 80.
- Green, Jeffrey D. and Summers, Robert G.: Ultrastructural demonstration of trypsin-like protease in acrosomes of sea urchin sperm. v209 p398-400 18 July 80.
- Greenberg, Daniel S.: News and Comment in retrospect (letter). v209 p544 1 Aug 80.
- Grim, Muriel S. See Behrendt, John C.
- Grimes, Gary W.; McKenna, Maureen E.; Goldsmith-Spoegler, Christina M.; Knaupp, Elizabeth A.: Patterning and assembly of cilia are independent processes in hypotrich ciliates. v209 p281-283 11 July 80.
- Grodsky, Gerald M. See Norman, Anthony W.
- Gross, Paul R. See Arceci, Robert J.
- Gruenke, Larry D. See Abolin, Craig R.
- Gruest, Jacqueline. See Masucci, Maria Grazia.
- Grunberg, Neil E. See Kozlowski, Lynn T.
- Grundmanis, Varis. See Murray, James W.
- Guarente, Leonard; Roberts, Thomas M.; Plashne, Mark: A technique for expressing eukaryotic genes in bacteria. v209 p1428-1430 19 Sep 80.
- Guest, J. E.: review of *Asteroids*, edited by Tom Gehrels. v209 p267 11 July 80.
- Gulmon, S. L. See Mooney, H. A.
- Gupta, R. See Fox, G. E.
- Gur, Ruben C. See Sackeim, Harold A.
- Guy, A. W. See Chou, C.-K.
- H**
- Haase, C. S.; Chadam, J.; Feinn, D.; Ortoleva, P.: Oscillatory zoning in plagioclase feldspar. v209 p272-274 11 July 80.
- Haber, Edgar. See Khaw, Ban An.
- Haber, Ralph Norman: review of *The Ecological Approach to Visual Perception*, by James J. Gibson. v209 p799-800 15 Aug 80.
- Hagar, Will L. See Sweet, Frederick.
- Hajjar, Nicolas P. and Hodgson, Ernest: Flavin adenine dinucleotide-dependent monooxygenase: its role in the sulfoxidation of pesticides in mammals. v209 p1134-1136 5 Sep 80.
- Halban, P. See Meda, P.
- Hall, Alan. See Masucci, Maria Grazia.
- Hamilton, R. M. See Zosback, M. D.
- Hand, Mary Ann. See Ling, James G.
- Handin, Robert I. See Goldberg, Itzhad D.
- Hansen, J. Norman. See Leder, Philip.
- Harbaugh, John W. See Davis, John C.
- Hardy, James L. See Turell, Michael J.
- Harlow, George E. See Langer, Arthur M.
- Hartline, Beverly Karplus (research news): Fighting the spreading chestnut blight. v209 p892-893 22 Aug 80. Icebergs and oil tankers soon to mix. v209 p381 18 July 80. Irrigation threatens Egyptian temples. v209 p796 15 Aug 80. Tapping sun-warmed ocean water for power. v209 p794-796 15 Aug 80.
- Haseltine, William A.; Lo, Kwok Ming; D'Andrea, Alan D.: Preferred sites of strand scission in DNA modified by anti-diol epoxide of benzo[a]pyrene. v209 p929-931 22 Aug 80.
- Hatzinikolaou, Peter; Gavras, Haralambos; Brunner, Hans R.; Gavras, Irene: Sodium-induced elevation of blood pressure in the anephric state. v209 p935-936 22 Aug 80.
- Haugh, Bruce N. and Bell, Bruce M.: Fossilized viscera in primitive echinoderms. v209 p653-657 8 Aug 80.
- Hayatsu, Ryoichi; Scott, Robert G.; Studier, Martin H.; Lewis, Roy S.; Anders, Edward: Carbynes in meteorites: detection, low-temperature origin, and implications for interstellar molecules. v209 p1515-1518 26 Sep 80.
- Heber, D. and Swerdloff, R. S.: Male contraception: synergism of gonadotropin-releasing hormone analog and testosterone in suppressing gonadotropin. v209 p936-938 22 Aug 80.
- Hefner, Edward. See Löfroth, Göran.
- Heiligenberg, Walter. See Bastian, Joseph.
- Held, Joe R.: Animals in the lab (letter). v209 p214 11 July 80.
- Heldt, Anneliese M. See Norman, Anthony W.
- Hemrick-Luecke, Susan. See Fuller, Ray W.
- Henderson, Graeme. See Pepper, Christine M.
- Henderson, Thomas O. See Miceli, Michael V.
- Henry, Joseph F. See Terman, David S.
- Herman, Yvonne and Hopkins, David M.: Arctic oceanic climate in late Cenozoic time. v209 p557-562 1 Aug 80.
- Herrick, I. W. See Hooper, P. R.
- Herschman, Arthur: Science and technology: bridging the frontiers (AAAS). v209 p1221 12 Sep 80.
- Hespell, R. B. See Fox, G. E.
- Hibler, Michelle: IDRC's approach to science and technology for development. v209 p362-367 18 July 80.
- High Background Radiation Research Group, China: Health survey in high background radiation areas in China. v209 p877-880 22 Aug 80.
- Hirata, Fusao and Axelrod, Julius: Phospholipid methylation and biological signal transmission. v209 p1082-1090 5 Sep 80.
- Hirsch, E. H.: A new irradiation effect and its implications for the disposal of high-level radioactive waste. v209 p1520-1522 26 Sep 80.
- Ho, Jenny J. L. See Rothman, Stephen S.
- Hochachka, P. W. See Shoubridge, Eric A.
- Hodge, P. W.: review of *Star Clusters*, edited by James E. Hesser. v209 p1231-1235 12 Sep 80.
- Hodgson, Ernest. See Hajjar, Nicolas P.
- Hoeksema, J. T. See Wilcox, J. M.
- Hoff, R. M. and Gallant, A. J.: Sulfur dioxide emissions from La Soufriere Volcano, St. Vincent, West Indies. v209 p923-924 22 Aug 80.
- Hoffman, Carol A. See Carroll, C. Ronald.
- Hoffner, Nancy J. and DiBerardino, Marie A.: Developmental potential of somatic nuclei transplanted into meiotic oocytes of *Rana pipiens*. v209 p517-519 25 July 80.
- Holden, Constance (news and comment): Arguments heard for psychedelics probe. v209 p256-257 11 July 80. Behavioral medicine: an emergent field. v209 p479-481 25 July 80. Biologist is new head of Kennedy Institute. v209 p665 8 Aug 80. Chemical warfare: panel promotes binaries. v209 p1215 12 Sep 80. Condor flap in California. v209 p670-672 8 Aug 80. Doubts mounting about all-volunteer force. v209 p1095-1096, 1099 5 Sep 80. France seeks European team to develop breeder. v209 p1215 12 Sep 80. House reopens nerve gas issue. v209 p786 15 Aug 80. House report nails AEC for sheep deaths. v209 p1097 5 Sep 80. Not what you know but where you're from. v209 p1097 5 Sep 80. Rational sui-

- cide. v209 p1096-1097 5 Sep 80. Remember the elephant. v209 p1215 12 Sep 80. Republican candidate picks fight with Darwin. v209 p1214 12 Sep 80. 'Roos abundant, imports O.K. says U.S. v209 p257 11 July 80. Stanford picks Donald Kennedy. v209 p257 11 July 80.
- Holm, Richard H. See Ibers, James A.
- Holsters, Marcelle. See Zambryski, Patricia.
- Hood, Leroy E. See Davis, Mark M.
- Hooper, P. R.; Herrick, I. W.; Laskowski, E. R.; Knowles, C. R.: Composition of the Mount St. Helens ashfall in the Moscow-Pullman area on 18 May 1980. v209 p1125-1126 5 Sep 80.
- Hopkins, David M. See Herman, Yvonne.
- Horowitz, Frances Degen. See Nelson, Charles A.
- Houtchens, R. A. See Zinkham, W. H.
- Howe, Chin C. See Knowles, Barbara B.
- Hsu, Yu-Chih and Gonda, Matthew A.: Monozygotic twin formation in mouse embryos in vitro. v209 p605-606 1 Aug 80.
- Huang, Jen-Kuang. See Oman, Charles M.
- Huc, Alain Y. See Hunt, John M.
- Hughes, T. P. and Jackson, J. B. C.: Do corals lie about their age? some demographic consequences of partial mortality, fission, and fusion. v209 p713-715 8 Aug 80.
- Häfele, Wolf: A global and long-range picture of energy developments. v209 p174-182 4 July 80.
- Hunt, John M.; Whelan, Jean K.; Huc, Alain Y.: Genesis of petroleum hydrocarbons in marine sediments. v209 p403-404 18 July 80.
- Hunt, L. T. See Dayhoff, M. O.
- Hunter, Bruce E. See Walker, Don W.
- Hutman, Lucinda P. See Sekuler, Robert.

## I and J

- Ibers, James A. and Holm, Richard H.: Modeling coordination sites in metallo-biomolecules. v209 p223-235 11 July 80.
- Ikawa-Smith, Fumiko: review of *Shang Civilization*, by Kwang-chih Chang. v209 p679-680 8 Aug 80.
- Ingelfinger, Franz J.: Medicine. v209 p123-126 4 July 80.
- Ingram, Roland H., Jr. See Slutsky, Arthur S.
- Insel, Thomas. See Kalin, Ned H.
- Isenman, Lois D. See Rothman, Stephen S.
- Itakura, Keichi. See Wallace, R. Bruce.
- Itakura, Keichi and Riggs, Arthur D.: Chemical DNA synthesis and recombinant DNA studies. v209 p1401-1405 19 Sep 80.
- Jackson, J. B. C. See Hughes, T. P.
- Jackson, James. See Pellicer, Angel.
- Jackson, Peter O. See Fruchter, Jonathan S.
- Jaffe, B. M. See Santoro, M. G.
- James, Frances C.: review of *Conservation Biology*, edited by Michael E. Soulé and Bruce A. Wilcox. v209 p267-268 11 July 80.
- James, William R. See Uman, Myron F.
- Jankovsky, Lynn D. See Burks, Jack S.
- Jankowski, Edward. See Behrendt, John C.
- Janowsky, David S. See Risch, Samuel C.
- Jennings, D. H.: review of *Plant Membrane Transport*, edited by R. M. Spanwick, W. J. Lucas, and J. Dant. v209 p1508 26 Sep 80.
- Jenny, Hans: Alcohol or humus? (letter). v209 p444 25 July 80.
- Jochim, Michael: review of *The Early Post-glacial Settlement of Northern Europe*. v209 p1235-1236 12 Sep 80.
- Johnson, J. B. See Attallah, A. M.
- Johnson, James R.: Required technology courses? (letter). v209 p214, 216 4 July 80.
- Johnson, Peter F. See Wallace, R. Bruce.
- Johnston, David A.: Volcanic contribution of chlorine to the stratosphere: more significant to ozone than previously estimated? v209 p491-493 25 July 80.
- Joyce, Robert M., Editor: *Frontiers in chemistry*. v209 p89-95 4 July 80.
- Jump, Donald B. and Oppenheimer, Jack H.: Thyroid hormone receptor-containing fragment released from chromatin by deoxyribonuclease I and micrococcal nuclease. v209 p811-813 15 Aug 80.
- Justesen, D. R. See Chou, C.-K.

## K

- Kaiser, M. L.; Desch, M. D.; Warwick, J. W.; Pearce, J. B.: Voyager detection of non-thermal radio emission from Saturn. v209 p1238-1240 12 Sep 80.
- Kakunaga, Takeo and Crow, Janet D.: Cell variants showing differential susceptibility to ultraviolet light-induced transformation. v209 p505-507 25 July 80; erratum, p1182 12 Sep 80.
- Kalin, Ned H. See Risch, Samuel C.
- Kalin, Ned H.; Risch, Samuel C.; Cohen, Robert M.; Insel, Thomas; Murphy, Dennis L.: Dexamethasone fails to suppress  $\beta$ -endorphin plasma concentrations in humans and rhesus monkeys. v209 p827-828 15 Aug 80.
- Kamm, Roger D. See Slutsky, Arthur S.
- Kan, Yuet Wai and Dozy, Andr  e M.: Evolution of the hemoglobin S and C genes in world populations. v209 p388-391 18 July 80.
- Kao, Ming-Shian. See Sweet, Frederick.
- Karger, B. L. See Kirby, D. P.
- Kass, Elizabeth. See Davis, Michael.
- Kayan, Ilhan. See Kraft, John C.
- Kearney, John. See Maki, Richard.
- Kedinger, C. See Corden, J.
- Keith, Margaret S. See Bassett, Everett J.
- Kendrick, George. See St. Lawrence, William.
- Kennedy, Donald: Regulation and the universities (editorial). v209 p449 25 July 80.
- Kerr, Richard A. (research news): Changing global sea levels as a geologic index. v209 p483-486 25 July 80. How much is too much when the earth quakes? v209 p1004-1007 29 Aug 80. Jovian weather: like Earth's or a star's? v209 p1219-1220 12 Sep 80.
- Kett, Joseph F.: review of *At Odds*, by Carl N. Degler. v209 p584-585 1 Aug 80.
- Kevles, Daniel J.; Sturchio, Jeffrey L.; Carroll, P. Thomas: The sciences in America, circa 1880. v209 p27-32 4 July 80.
- Khalafalla, Sanaa. See Schiller, Joseph E.
- Khaw, Ban An; Fallon, John T.; Strauss, H. William; Haber, Edgar: Myocardial infarct imaging of antibodies to canine cardiac myosin with indium-111-diethylenetriamine pentaacetic acid. v209 p295-297 11 July 80.
- Kier, Porter M.: Geological research (letter). v209 p1470, 1472 26 Sep 80.
- Kim, B. D. See Levings, C. S., III.
- Kim, Stuart K. See Davis, Mark M.
- King, Richard A. See Creel, Donnell.
- Kirby, D. P.; Vouras, Paul; Karger, B. L.: Ion pairing techniques: compatibility with on-line liquid chromatography-mass spectrometry. v209 p495-497 25 July 80.
- Kiriazides, Demosthenes K. See Rosenkranz, Herbert S.
- Klein, Eva. See Masucci, Maria Grazia.
- Klein, George. See Masucci, Maria Grazia.
- Klinger, J.: Influence of a phase transition of ice on the heat and mass balance of comets. v209 p271-272 11 July 80.
- Klingsmith, D. A., III. See Feibelman, W. A.
- Knaupp, Elizabeth A. See Grimes, Gary W.
- Knowles, Barbara B.; Howe, Chin C.; Aden, David P.: Human hepatocellular carcinoma cell lines secrete the major plasma proteins and hepatitis B surface antigen. v209 p497-499 25 July 80.
- Knowles, C. R. See Hooper, P. R.
- Knox, Richard A.: Heart transplants: to pay or not to pay (news and comment). v209 p570-572, 574-575 1 Aug 80.
- Koenig, Harold; Goldstone, Alfred; Blume, Gary; Lu, Chung Y.: Testosterone-mediated sexual dimorphism of mitochondria and lysosomes in mouse kidney proximal tubules. v209 p1023-1026 29 Aug 80.

- Kohlstedt, Sally Gregory: *Science: the struggle for survival, 1880 to 1894*. v204 p33-42 4 July 80.
- Kolata, Gina Bari (news and comment): Cryptography: a new clash between academic freedom and national security. v209 p995-996 29 Aug 80. NIH shaken by death of research volunteer. v209 p475-476, 478-479 25 July 80. (research news): Dilemma in cancer treatment. v209 p792-794 15 Aug 80. Lens biophysics and cataract formation. v209 p1007-1008 29 Aug 80. Prenatal diagnosis of neural tube defects. v209 p1216-1218 12 Sep 80. Testing for primes gets easier. v209 p1503-1504 26 Sep 80.
- Konkel, David. See Leder, Philip.
- Kontos, Hermes A.; Wei, Enoch P.; Povlishock, John T.; Dietrich, W. Dalton; Magiera, Christopher J.; Ellis, Earl F.: Cerebral arteriolar damage by arachidonic acid and prostaglandin  $G_2$ . v209 p1242-1245 12 Sep 80.
- Kottas, Brian L. See Lappin, Joseph S.
- Kozlowski, Lynn T.; Rickert, W. S.; Robinson, J. C.; Grunberg, Neil E.: Have tar and nicotine yields of cigarettes changed? v209 p1550-1551 26 Sep 80.
- Kraft, John C.; Kayan, Ilhan; Erol, Oguz: Geomorphologic reconstructions in the environs of ancient Troy. v209 p776-782 15 Aug 80.
- Kruger, Kelly. See Zambryski, Patricia.
- Ku, S. B. See Gerwick, B. C.
- Kubanis, Patricia. See Walker, Don W.
- Kuruc, Alvin. See Cassens, Geraldine.

## L

- Lacy, Paul E.; Davie, Joseph M.; Finke, Edward H.: Prolongation of islet xenograft survival without continuous immunosuppression. v209 p283-285 11 July 80.
- Lake, R. S. See Bigger, C. A. H.
- Land, Charles E.: Estimating cancer risks from low doses of ionizing radiation. v209 p1197-1203 12 Sep 80.
- Lande, Russell: review of *Genetic Models of Sexual Selection*, by Peter O'Donald. v209 p268-269 11 July 80.
- Landesman-Dwyer, Sharon. See Streissguth, Ann Pytkowicz.
- Langer, Arthur M.; Rohl, Arthur N.; Selikoff, Irving J.; Harlow, George E.; Prinz, Martin: Asbestos as a cofactor in carcinogenesis among nickel-processing workers. v209 p420-422 18 July 80.
- Langer, S. Z. See Briley, M. S.
- Lappin, Joseph S.; Doner, Jonathan F.; Kottas, Brian L.: Minimal conditions for the visual detection of structure and motion in three dimensions. v209 p717-719 8 Aug 80.
- Laskowski, E. R. See Hooper, P. R.
- Latham, Arthur B. See Smith, Alvin W.
- Laughnan, J. R. See Levings, C. S., III.
- Laul, Jagdish C. See Fruchter, Jonathan S.
- Lawrence, Gregory J.: Multiple mating-type specificities in the flax rust *Melampsora lini*. v209 p501-503 25 July 80.
- Lawyer, Frances C. See Lin, Pin-Fang.
- Lea, Arden O. See Beckemeyer, Elizabeth F.
- Leder, Aya. See Leder, Philip.
- Leder, Philip; Hansen, J. Norman; Konkel, David; Leder, Aya; Nishioka, Yutaka; Talkington, Carol: Mouse globin system: a functional and evolutionary analysis. v209 p1336-1342 19 Sep 80.
- Lee, Chin O.; Uhm, Dae Y.; Dresdner, Karl: Sodium-calcium exchange in rabbit heart muscle cells: direct measurement of sarcoplasmic  $Ca^{2+}$  activity. v209 p699-701 8 Aug 80.
- Lee, John J.: review of *Cellular Interactions in Symbiosis and Parasitism*. v209 p1113-1114 5 Sep 80.
- Lee, Richard N. See Fruchter, Jonathan S.
- Lee, Song-Chiau D. See Sweet, Frederick.
- Leetmaa, A.; Rossby, H. T.; Saunders, P. M.; Wilson, P.: Subsurface circulation in the Somali Current. v209 p590-592 1 Aug 80.
- Lehr, John. See Slutsky, Arthur S.
- Lepel, Elwood A. See Fruchter, Jonathan S.

- Levine, Allen S. See Morley, John E.  
 Levine, David C. See Shapiro, Bernard H.  
 Levings, C. S., III; Kim, B. D.; Pring, D. R.; Conde, M. F.; Mans, R. J.; Laughnan, J. R.; Gabay-Laughnan, S. J.: Cytoplasmic reversion of *cms-S* in maize: association with a transpositional event. v209 p1021-1023 29 Aug 80.  
 Levy, Stuart B.; Marshall, Bonnie; Rowse-Eagle, Debra; Onderdonk, Andrew: Survival of *Escherichia coli* host-vector systems in the mammalian intestine. v209 p391-394 18 July 80.  
 Lewis, B. J. See Fox, G. E.  
 Lewis, Deborah. See Teyler, Timothy J.  
 Lewis, Roy S. See Hayatsu, Ryoichi. See also Whittaker, A. Greenville.  
 Li, Choh Hao. See Matsuoka, Hiroaki.  
 Lijinsky, W.; Reuber, M. D.; Blackwell, B.-N.: Liver tumors induced in rats by oral administration of the antihistaminic methapyrilene hydrochloride. v209 p817-819 15 Aug 80.  
 Lin, Pin-Fang; Slate, Doris L.; Lawyer, Frances C.; Ruddie, Frank H.: Assignment of the murine interferon sensitivity and cytoplasmic superoxide dismutase genes to chromosome 16. v209 p285-287 11 July 80.  
 Lincoln, Cynthia A. See White, Brent C.  
 Ling, James G. and Hand, Mary Ann: Federal funding in materials research. v209 p1203-1207 12 Sep 80.  
 Lippa, Arnold S. See Bartus, Raymond T.  
 Liu, Chih-Ping. See Tucker, Philip W.  
 Liu, Chih-Ping; Tucker, Philip W.; Mushinski, J. Frederic; Blattner, Frederick R.: Mapping of heavy chain genes for mouse immunoglobulins M and D. v209 p1348-1353 19 Sep 80.  
 Lo, Kwok Ming. See Haseltine, William A.  
 Löfroth, Göran; Hefner, Edward; Alfheim, Ingrid; Möller, Mona: Mutagenic activity in photocopies. v209 p1037-1039 29 Aug 80.  
 Loring, Stephen H. See Slutsky, Arthur S.  
 Lovett, Edmund J., III. See Simon, Richard H.  
 Lowenstein, Jerold M. See Prager, Ellen M.  
 Lowy, Israel. See Pellicer, Angel.  
 Lu, Chung Y. See Koenig, Harold.  
 Ludwig, Frederick C.: What to expect from gerontological research? (editorial). v209 p1071 5 Sep 80.  
 Luehrs, K. R. See Fox, G. E.  
 Lund, Richard: Viviparity and intrauterine feeding in a new holoccephalan fish from the Lower Carboniferous of Montana. v209 p697-699 8 Aug 80.  
 Lundy, Joel. See Simon, Richard H.  
 Luyten, J. R.; Fleux, M.; Gonella, J.: Equatorial currents in the western Indian Ocean. v209 p600-603 1 Aug 80.  
 Lynch, Mark. See Sheffield, Joel B.  
 Lynch, Thomas F.: review of *Prehistoric Hunters of the High Andes*, by John W. Ricketts. v209 p488-489 25 July 80.
- M**
- Mac Lane, Saunders: Mathematics. v209 p104-110 4 July 80. See also Alperin, Jonathan.  
 Mack, Scherraine: NAS and Sakharov (news and comment). v209 p1100 5 Sep 80.  
 Macnab, Robert M.: review of *Membrane Transduction Mechanisms*, edited by Richard A. Cone and John E. Dowling. v209 p269-270 11 July 80.  
 Madden, Roland A. and Ramanathan, V.: Detecting climate change due to increasing carbon dioxide. v209 p763-768 15 Aug 80.  
 Magiera, Christopher J. See Kontos, Hermes A.  
 Magrum, L. J. See Fox, G. E.  
 Maier, P. and Zbinden, G.: Specific locus mutations induced in somatic cells of rats by orally and parentally administered procarbazine. v209 p299-301 11 July 80.  
 Maki, Richard; Kearney, John; Paige, Christopher; Tonegawa, Susumu: Immunoglobulin gene rearrangement in immature B cells. v209 p1366-1369 19 Sep 80.  
 Malyon, Alan. See Escoffier, Jeffrey.  
 Mandel, Gail. See Simon, Melvin.  
 Mangum, Charlotte P. and Mauro, Nicholas A.: review of *Living without Oxygen*, by Peter W. Hochachka. v209 p586-587 1 Aug 80.  
 Maniatis, Tom. See Proudfoot, Nicholas J.  
 Maniloff, J. See Fox, G. E.  
 Manley, Jim L. See Proudfoot, Nicholas J.  
 Mans, R. J. See Levings, C. S., III.  
 Mansfield, Edwin: Research and development, productivity, and inflation. v209 p1091-1093 5 Sep 80.  
 Marchin, George L.: Mutations in a nonessential viral gene permit bacteriophage T4 to form plaques on *Escherichia coli* val<sup>S</sup>relA. vol 209 p294-295 11 July 80.  
 Mardian, James K. W.; Paton, Arthur E.; Bunick, Gerard J.; Olins, Donald E.: Nucleosome cores have two specific binding sites for nonhistone chromosomal proteins HMG 14 and HMG 17. v209 p1534-1536 26 Sep 80.  
 Maresca, Joseph W., Jr., and Carlson, Christopher T.: High-frequency skywave radar measurements of hurricane Anita. v209 p1189-1196 12 Sep 80.  
 Marks, Gerald A. See Farber, Jorge.  
 Marshall, Bonnie. See Levy, Stuart B.  
 Marshall, Eliot (news and comment): Church leaders question decision on new genetics. v209 p573 1 Aug 80. Debate continues on the bomb that wasn't. v209 p572-573 1 Aug 80. DOE leads synfuels crusade without a map. v209 p1208-1210 12 Sep 80. Health committee investigates farm drugs. v209 p481-482 25 July 80. Malpractice award rattles Johns Hopkins. v209 p889-891 22 Aug 80. Navy lab concludes the Vela saw a bomb. v209 p996-997 29 Aug 80. Nuclear industry versus Amory Lovins. v209 p573 1 Aug 80. Planning for an oil cutoff. v209 p246-247 11 July 80.  
 Marshall, John C. See Savoy-Moore, Ruth T.  
 Martial, Joseph A. See Mendez, Bernadita. See also Owerbach, David.  
 Martin, Brian: Dismissed Australian scientist (letter). v209 p1182 12 Sep 80.  
 Martin, Debra L. See Bassett, Everett J.  
 Martin, Gail R.: Teratocarcinomas and mammalian embryogenesis. v209 p768-776 15 Aug 80.  
 Martin, Joan C. See Streissguth, Ann Pytkowicz.  
 Marx, Jean L. (news and comment): Consensus—more or less—on the Pap smear. v209 p672 8 Aug 80. (research news): Improving the success of kidney transplants. v209 p673-674 8 Aug 80. Regeneration in the central nervous system. v209 p378-380 18 July 80. Vaccinating with bacterial pili. v209 p1103-1106 5 Sep 80.  
 Massey, Adrienne and Vandenberg, John G.: Puberty delay by a urinary cue from female house mice in feral populations. v209 p821-822 15 Aug 80.  
 Masucci, Maria Grazia; Szigeti, Robert; Klein, Eva; Klein, George; Gruet, Jacqueline; Montagnier, Luc; Taira, Hideharu; Hall, Alan; Nagata, Shigekazu; Weissmann, Charles: Effect of interferon- $\alpha$ 1 from *E. coli* on some cell functions. v209 p1431-1435 19 Sep 80.  
 Mathers, David A. and Barker, Jeffery L.: (-)Pentobarbital opens ion channels of long duration in cultured mouse spinal neurons. v209 p507-509 25 July 80.  
 Matsuoka, Hiroaki; Mulrow, Patrick J.; Li, Choh Hao:  $\beta$ -Lipotropin: a new aldosterone-stimulating factor. v209 p307-308 11 July 80.  
 Maugh, Thomas H., II (research news): But do they have metal detectors? v209 p894 22 Aug 80. Separation by MS speed up, simplifying analysis. v209 p675-677 8 Aug 80.  
 Mauldin, W. Parker: Population trends and prospects. v209 p148-157 4 July 80.  
 Maurette, M. See Dran, J. C.  
 Mauro, Nicholas A. See Mangum, Charlotte P.  
 McCaleb, M. L. See Myers, R. D.  
 McCormack, Allan M.: Early two-dimensional reconstruction and recent topics stemming from it. v209 p1482-1486 26 Sep 80.  
 McCoy, Elena C. See Rosenkranz, Herbert S.  
 McDermott, Walsh: Pharmaceuticals: their role in developing societies. v209 p240-245 11 July 80.  
 McKell, Cyrus M. and Reining, Priscilla: COAL meets to plan future activities (AAAS). v209 p583 1 Aug 80.  
 McKelvey, V. E.: Seabed minerals and the Law of the Sea. v209 p464-472 25 July 80.  
 McKenna, Maureen E. See Grimes, Gary W.  
 McKeown, F. A. See Zoback, M. D.  
 McNab, Brian K.: review of *A Cold Look at Warm-Blooded Dinosaurs*, edited by Roger D. K. Thomas and Everett C. Olson. v209 p797-798 15 Aug 80. review of *Vertebrate Ecology in the Northern Neotropics*, edited by John F. Eisenberg. v209 p488 25 July 80.  
 Meda, P.; Halban, P.; Perrelet, A.; Renold, A. E.; Orci, L.: Gap junction development is correlated with insulin content in the pancreatic B cell. v209 p1026-1028 29 Aug 80.  
 Mendez, Bernadita; Valenzuela, Pablo; Martial, Joseph A.; Baxter, John D.: Cell-free synthesis of acetylcholine receptor polypeptides. v209 p695-697 8 Aug 80.  
 Meola, Roger W. and Petralia, Ronald S.: Juvenile hormone induction of biting behavior in *Culex* mosquitoes. v209 p1548-1550 26 Sep 80.  
 Mermelstein, Robert. See Rosenkranz, Herbert S.  
 Merrill, J. T. See Duce, R. A.  
 Miceli, Michael V.; Henderson, Thomas O.; Myers, Terrell C.: 2-Aminoethylphosphonic acid metabolism during embryonic development of the planorbis snail *Helisoma*. v209 p1245-1247 12 Sep 80.  
 Miller, Joanne L. See Eimas, Peter D.  
 Milner, J. A. See Greeder, Glenn A.  
 Miser, Hugh J.: Operations research and systems analysis. v209 p139-146 4 July 80.  
 Molinari, R. L. See Düng, W.  
 Moll, Russell A. See Chang, William Y. B.  
 Mollenhauer, Hilton H. See Costa, Max.  
 Möller, Mona. See Löfroth, Göran.  
 Montagnier, Luc. See Masucci, Maria Grazia.  
 Mooney, H. A.; Guilmon, S. L.; Ehleringer, J.; Rundel, P. W.: Atmospheric water uptake by an Atacama Desert shrub. v209 p693-694 8 Aug 80.  
 Moore, Johnnie. See St. Lawrence, William.  
 Mori, Scott Alan; Orchard, John Eric; France, Ghilleen Tolmie: Intrafloral pollen differentiation in the New World Lecythidaceae, subfamily Lecythidoidea. v209 p400-403 18 July 80.  
 Morin, Stephen. See Escoffier, Jeffrey.  
 Morley, John E. and Levine, Allen S.: Stress-induced eating is mediated through endogenous opiates. v209 p1259-1261 12 Sep 80.  
 Mosher, Deane F. and Proctor, Richard A.: Binding and factor XIII<sub>a</sub>-mediated cross-linking of a 27-kilodalton fragment of fibronectin to *Staphylococcus aureus*. v209 p927-929 22 Aug 80.  
 Moss, Owen R. See Fruchter, Jonathan S.  
 Mosteller, Frederick: The next 100 years of Science. v209 p21-23 4 July 80.  
 Muller, Richard A.: Innovation and scientific funding. v209 p880-883 22 Aug 80.  
 Mulligan, R. C. and Berg, P.: Expression of a bacterial gene in mammalian cells. v209 p1422-1427 19 Sep 80.  
 Mulrow, Patrick J. See Matsuoka, Hiroaki.  
 Munn, Gwyneth. See Dörner, Marianne H.  
 Murphy, Dennis L. See Kalin, Ned H. See also Risch, Samuel C.  
 Murphy, Edmond A.: review of *Human Genetics*, by F. Vogel and A. G. Motulsky. v209 p798-799 15 Aug 80.  
 Murray, James W. and Grundmanis, Varis: Oxygen consumption in pelagic marine sediments. v209 p1527-1530 26 Sep 80.  
 Mushinski, J. Frederic. See Liu, Chih-Ping. See also Tucker, Philip W.



- Myers, R. D. and McCaleb, M. L.: Feeding: satiety signal from intestine triggers brain's noradrenergic mechanism. v209 p1035-1037 29 Aug 80.  
Myers, Terrell C. See Miceli, Michael V.

## N and O

- Nagata, Shigekazu. See Masucci, Maria Grazia. See also Streuli, Michel.  
Nathans, D. See Peden, K. W. C.  
Neiburger, Morris: review of *Clouds and Storms*, by F. H. Ludlam. v209 p1010 29 Aug 80.  
Nelson, Charles A. and Horowitz, Frances Degen: Asymmetry in facial expression (technical comment). v209 p834 15 Aug 80.  
Nelson, Gareth: review of *The Biology and Physiology of the Living Coelacanth*, edited by John E. McCosker and Michael D. Lagios. v209 p917-918 22 Aug 80.  
Nelson-Rees, Walter A.; Flandermeyer, Robert R.; Daniels, David W.: T-1 cells are HeLa and not of normal human kidney origin (technical comment). v209 p719-720 8 Aug 80.  
Nestoros, J. N.: Ethanol specifically potentiates GABA-mediated neurotransmission in feline cerebral cortex. v209 p708-710 8 Aug 80.  
Newell, Nanette; Richards, Julia E.; Tucker, Philip W.; Blattner, Frederick R.: J genes for heavy chain immunoglobulins of mouse. v209 p1128-1132 5 Sep 80.  
Nguyen-Dinh, Phuc; Campbell, Carlos C.; Collins, William E.: Cultivation in vitro of the quartan malaria parasite *Plasmodium inui*. v209 p1249-1251 12 Sep 80.  
Niklas, Karl J. and Pratt, Lisa M.: Evidence for lignin-like constituents in early Silurian (Llandoveryan) plant fossils. v209 p396-397 18 July 80.  
Nishida, R. See Bowers, W. S.  
Nishioka, Yutaka. See Leder, Philip.  
Nishiyi, Koji. See Dörner, Marianne H.  
Nogge, G. and Giannetti, M.: Specific antibodies: a potential insecticide. v209 p1028-1029 29 Aug 80.  
Noguchi, P. D. See Attallah, A. M.  
Norman, Anthony W.; Frankel, Barbara J.; Heldt, Anneliese M.; Grodsky, Gerald M.: Vitamin D deficiency inhibits pancreatic secretion of insulin. v209 p823-825 15 Aug 80.  
Nussbaum, Hans: AAAS symposium volumes (AAAS). v209 p583 1 Aug 80.  
O'Doherty, J.; Youmans, S. J.; Armstrong, W. McD.; Stark, R. J.: Calcium regulation during stimulus-secretion coupling: continuous measurement of intracellular calcium activities. v209 p510-513 25 July 80.  
Oettinger, Anthony G.: Information resources: knowledge and power in the 21st century. v209 p191-198 4 July 80.  
Olins, Donald E. See Mardian, James K. W.  
Olsen, Khris B. See Fruchter, Jonathan S.  
Olszewski, Mitchell. See Besmann, Theodore M.  
Oman, Charles M.; Bock, Otmar L.; Huang, Jen-Kuang: Visually induced self-motion sensation adapts rapidly to left-right visual reversal. v209 p706-708 8 Aug 80.  
Onderdonk, Andrew. See Levy, Stuart B.  
Opell, Brent D.: review of *Comparative Studies of the Courtship and Mating Behavior of Tropical Araneid Spiders*, by Michael H. Robinson and Barbara Robinson. v209 p1112-1113 5 Sep 80.  
Oppenheimer, Jack H. See Jump, Donald B.  
Orchard, John Eric. See Mori, Scott Alan.  
Orci, L. See Meda, P.  
Orcutt, B. C. See Dayhoff, M. O.  
Orians, Gordon H.: review of *Warfare in a Fragile World*, by Stockholm International Peace Research Institute. v209 p1009 29 Aug 80.  
Orsulak, Paul J. See Cassens, Geraldine.  
Ortoleva, P. See Haase, C. S.  
O'Shea, Thomas J.; Fleming, W. James, III; Cromarie, Eugene: DDT contamination at

- Wheeler National Wildlife Refuge. v209 p509-510 25 July 80.  
Osterbrock, Donald E.: Keeler's gap (letter). v209 p444 25 July 80.  
Owerbach, David; Rutter, William J.; Martial, Joseph A.; Baxter, John D.; Shows, Thomas B.: Genes for growth hormone, chorionic somatomammotropin, and growth hormone-like gene on chromosome 17 in humans. v209 p289-292 11 July 80.  
Owsley, Cynthia J. See Sekuler, Robert.

## P and Q

- Paige, Christopher. See Maki, Richard.  
Paton, Arthur E. See Mardian, James K. W.  
Payne, Sequoyah L. See Schiller, Joseph E.  
Pearce, J. B. See Kaiser, M. L.  
Pearce, Nell W. See White, Brent C.  
Pearson, David E.; Teicher, Martin H.; Shaywitz, Bennett A.; Cohen, Donald J.; Young, J. Gerald; Anderson, George M.: Environmental influences on body weight and behavior in developing rats after neonatal 6-hydroxydopamine. v209 p715-717 8 Aug 80.  
Pearson-White, S. See Peden, K. W. C.  
Peden, K. W. C.; Pipas, J. M.; Pearson-White, S.; Nathans, D.: Isolation of mutants of an animal virus in bacteria. v209 p1392-1396 19 Sep 80.  
Pellicer, Angel; Robins, Diane; Wold, Barbara; Sweet, Ray; Jackson, James; Lowy, Israel; Roberts, James Michael; Sim, Gek Kee; Silverstein, Saul; Axel, Richard: Altering genotype and phenotype by DNA-mediated gene transfer. v209 p1414-1422 19 Sep 80.  
Pepper, Christine M. and Henderson, Graeme: Opiates and opioid peptides hyperpolarize locus coeruleus neurons in vitro. v209 p394-396 18 July 80.  
Perkins, Richard W. See Fruchter, Jonathan S.  
Perrelet, A. See Meda, P.  
Perrone, Mark H. See Talman, William T.  
Petit, J. C. See Dran, J. C.  
Petralia, Ronald S. See Meola, Roger W.  
Petruzzi, Josephine M.: Analytical chemistry techniques (letter). v209 p1069 5 Sep 80.  
Picciano, Dante: Love Canal chromosome study (letter). v209 p754, 756 15 Aug 80.  
Pike, Marilyn C. See Snyderman, Ralph.  
Pipas, J. M. See Peden, K. W. C.  
Pittman, Roland N. See Boykin, Joseph V., Jr.  
Pollard, Helen Perlstein and Gorenstein, Shirley: Agrarian potential, population, and the Tarascan state. v209 p274-277 11 July 80.  
Pooley, Alan S. See Waterman, Talbot H.  
Porter, Alan L.; Rossini, Frederick A.; Chubin, Daryl E.; Connolly, Terry: Between disciplines (letter). v209 p966 29 Aug 80.  
Povlishock, John T. See Kontos, Hermes A.  
Prager, Ellen M.; Wilson, A. C.; Lowenstein, Jerold M.; Sarich, Vincent M.: Mammoth albumin. v209 p287-289 11 July 80.  
Prance, Ghilleen Tolmie. See Mori, Scott Alan.  
Pratt, Lisa M. See Niklas, Karl J.  
Pressman, Deborah. See Sheffield, Joel B.  
Pring, D. R. See Levings, C. S., III.  
Prinz, Martin. See Langer, Arthur M.  
Proctor, Richard A. See Mosher, Deane F.  
Prospero, J. M. See Duce, R. A.  
Proudfoot, Nicholas J.; Shander, Monica H. M.; Manley, Jim L.; Gelfer, Malcolm L.; Maniatis, Tom: Structure and in vitro transcription of human globin genes. v209 p1329-1336 19 Sep 80.  
Prusch, Robert D.: Endocytotic sucrose uptake in *Amoeba proteus* induced with the calcium ionophore A23187. v209 p691-692 8 Aug 80.  
Ptashne, Mark. See Guarente, Leonard.  
Pueschei, Curt M.: Pit connections and translocation in red algae (technical comment). v209 p422-423 18 July 80.  
Purcell, Jennifer E.: Influence of siphonophore behavior upon their natural diets: evidence

- for aggressive mimicry. v209 p1045-1047 29 Aug 80.  
Qamar, Anthony. See St. Lawrence, William.  
Quadfasel, D. R. See Schott, F.

## R

- Rabe, Bruce D. See Cisne, John L.  
Raisman, R. See Briley, M. S.  
Ramanathan, V. See Madden, Roland A.  
Raphael, Sharon. See Escoffier, Jeffrey.  
Rawitch, Allen B. See Teyler, Timothy J.  
Ray, B. J. See Duce, R. A.  
Reeb, Robin. See White, Brent C.  
Reinherz, Ellis. See Terhorst, Cox.  
Reining, Priscilla. See McKell, Cyrus M.  
Reis, Donald J. See Talman, William T.  
Renold, A. E. See Meda, P.  
Reuber, M. D. See Lijinsky, W.  
Revelle, Roger: Energy dilemmas in Asia: the needs for research and development. v209 p164-174 4 July 80.  
Reyman, Jonathan E.: An Anasazi solar marker? (letter). v209 p858, 860 22 Aug 80.  
Reynolds, John H.: Electron wave photos (letter). v209 p340 18 July 80.  
Richards, Julia E. See Newell, Nanette.  
Rickert, W. S. See Kozlowski, Lynn T.  
Riddiough, Michael A. and Willemis, Jane Sisk: Federal policies affecting vaccine research and production. v209 p563-566 1 Aug 80.  
Riggs, Arthur D. See Itakura, Keichi.  
Rigler, F. H. See Cornett, R. J.  
Risch, Samuel C. See Kalin, Ned H.  
Risch, Samuel C.; Cohen, Robert M.; Janowski, David S.; Kalin, Ned H.; Murphy, Dennis L.: Mood and behavioral effects of physostigmine on humans are accompanied by elevations in plasma  $\beta$ -endorphin and cortisol. v209 p1545-1546 26 Sep 80.  
Roberts, James Michael. See Pellicer, Angel.  
Roberts, Richard J. See Gingeras, Thomas R.  
Roberts, Thomas M. See Guarente, Leonard.  
Robertson, David E. See Fruchter, Jonathan S.  
Robins, Diane. See Pellicer, Angel.  
Robinson, Alfred V. See Fruchter, Jonathan S.  
Robinson, Arthur L. (research news): Are VLSI microcircuits too hard to design? v209 p258-262 11 July 80. Budget crunch hits high energy physics. v209 p577-580 1 Aug 80. Cornell evidence for fifth quark. v209 p1105 5 Sep 80. Plug pulled on chemistry computer center. v209 p1504-1506 26 Sep 80.  
Robinson, J. C. See Kozlowski, Lynn T.  
Roeder, G. Shirleen; Farabaugh, Philip J.; Chaleff, Deborah T.; Fink, Gerald R.: The origins of gene instability in yeast. v209 p1375-1380 19 Sep 80.  
Roffman, Mark. See Cassens, Geraldine.  
Roffward, Howard P. See Farber, Jorge.  
Rogers, Carol L.: AAAS membership recruitment concerns (AAAS). v209 p1109 5 Sep 80.  
Rogers, Kenneth C.: Engineering enters new cycle of development and definition. v209 p127-132 4 July 80.  
Rogowski, Robert S. See Schryer, David R.  
Rohi, Arthur N. See Langer, Arthur M.  
Rosenkranz, Herbert S.; McCoy, Elena C.; Sanders, Daniel R.; Butler, Marsha; Kiriazides, Demosthenes K.; Mermelstein, Robert: Nitropyrenes: isolation, identification, and reduction of mutagenic impurities in carbon black and toners. v209 p1039-1043 29 Aug 80.  
Rossby, H. T. See Leetmaa, A.  
Rossini, Frederick A. See Porter, Alan L.  
Roth, Stephen: review of *Plasma Membranes and Disease*, by Donald F. H. Wallach. v209 p918-919 22 Aug 80.  
Rothman, Stephen S.; Isenman, Lois D.; Ho, Jenny J. L.: Protein secretion by the pancreas (technical comment). v209 p1554-1556 26 Sep 80.  
Rowse-Eagle, Debra. See Levy, Stuart B.  
Royden, Halsey: "Risky" investments (letter). v209 p216 11 July 80.

- Rubin, Vera C.: Stars, galaxies, cosmos: the past decade, the next decade. v209 p64-71 4 July 80.  
 Ruddle, Frank H. See Lin, Pin-Fang.  
 Rundel, P. W. See Mooney, H. A.  
 Russ, D. P. See Zosack, M. D.  
 Rutter, William J. See Owerbach, David.  
 Ryan, Michael J.: Female mate choice in a neotropical frog. v209 p523-525 25 July 80.

## S

- Sackeim, Harold A. and Gur, Ruben C.: Asymmetry in facial expression (technical comment). v209 p834-836 15 Aug 80.  
 Salisbury, Frank B. See Wheeler, Raymond M.  
 Sanders, Daniel R. See Rosenkranz, Herbert S.  
 Sanders, Ronald W. See Fruchter, Jonathan S.  
 Sands, Stephen F. and Wright, Anthony A.: Primate memory: retention of serial list items by a rhesus monkey. v209 p938-940 22 Aug 80.  
 Santoro, M. G.; Benedetto, A.; Carruba, G.; Garaci, E.; Jaffe, B. M.: Prostaglandin A compounds as antiviral agents. v209 p1032-1034 29 Aug 80.  
 Sarich, Vincent M. See Prager, Ellen M.  
 Sassone-Corsi, P. See Corden, J.  
 Saunders, P. M. See Leetmaa, A.  
 Savoy-Moore, Ruth T.; Schwartz, Neena B.; Duncan, Joyce A.; Marshall, John C.: Pituitary gonadotropin-releasing hormone receptors during the rat estrous cycle. v209 p942-944 22 Aug 80.  
 Schell, Josef. See Zambryski, Patricia.  
 Scherer, Stewart and Davis, Ronald W.: Recombination of dispersed repeated DNA sequences in yeast. v209 p1380-1384 19 Sep 80.  
 Scherrer, P. H. See Wilcox, J. M.  
 Schildkraut, Joseph J. See Cassens, Geraldine.  
 Schiller, Joseph E.; Payne, Sequoyah L.; Khalafalla, Sanaa: Surface charge heterogeneity in amphibole cleavage fragments and asbestos fibers. v209 p1530-1532 26 Sep 80.  
 Schlossman, Stuart. See Terhorst, Cox.  
 Schott, F. and Quadfasel, D. R.: Development of the subsurface currents of the northern Somali Current gyre from March to July 1979. v209 p593-595 1 Aug 80.  
 Schryer, David R.; Cofer, Wesley R., III; Rogowski, Robert S.: Synergistic effects in trace gas-aerosol interactions (technical comment). v209 p723 8 Aug 80.  
 Schuffe, J. A.: 1980 annual SWARM meeting held in Las Vegas (AAAS). v209 p264-265 11 July 80.  
 Schöld, Monica. See Wallace, R. Bruce.  
 Schwartz, Neena B. See Savoy-Moore, Ruth.  
 Schwartz, R. M. See Dayhoff, M. O.  
 Schweickert, Richard: Critical-path scheduling of mental processes in a dual task. v209 p704-706 8 Aug 80.  
 Scott, Robert G. See Hayatsu, Ryoichi.  
 Sechter, D. See Briley, M. S.  
 Sehmel, George A. See Fruchter, Jonathan S.  
 Seiling, Eleanor: Animals in the lab (letter). v209 p214 11 July 80.  
 Sekuler, Robert; Hutman, Lucinda P.; Owsley, Cynthia J.: Human aging and spatial vision. v209 p1255-1256 12 Sep 80.  
 Selikoff, Irving J. See Langer, Arthur M.  
 Sergin, V. Ya.: Origin and mechanism of large-scale climatic oscillations. v209 p1477-1482 26 Sep 80.  
 Shade, John W. See Fruchter, Jonathan S.  
 Shafie, Samir M.: Estrogen and the growth of breast cancer: new evidence suggests indirect action. v209 p701-702 8 Aug 80.  
 Shafizadeh, Fred: review of *Progress in Biomass Conversion*, edited by Kyosti V. Sarkanen and David A. Tillman. v209 p917 22 Aug 80.  
 Shander, Monica H. M. See Proudfoot, Nicholas J.  
 Shapiro, Ascher H. See Slutsky, Arthur S.  
 Shapiro, Bernard H.; Levine, David C.; Adler, Norman T.: The testicular feminized rat: a naturally occurring model of androgen independent brain masculinization. v209 p418-420 18 July 80.  
 Shapiro, Douglas Y.: Serial female sex changes after simultaneous removal of males from social groups of a coral reef fish. v209 p1136-1137 5 Sep 80.  
 Shaver, Gaius R.: review of *Comparative Mechanisms of Cold Adaptation*, edited by Larry S. Underwood, Larry L. Tieszen, Arthur B. Callahan, and G. Edgar Folk. v209 p385 18 July 80.  
 Shaw, Margery W.: Love Canal chromosome study (letter). v209 p751-752 15 Aug 80.  
 Shaywitz, Bennett A. See Pearson, David E.  
 Shearer, William T. See Terman, David S.  
 Sheffield, Joel B.; Pressman, Deborah; Lynch, Mark: Cells isolated from the embryonic neural retina differ in behavior in vitro and membrane structure. v209 p1043-1045 29 Aug 80.  
 Sholley, Milton M. See Boykin, Joseph V., Jr.  
 Shoubridge, Eric A. and Hochachka, P. W.: Ethanol: novel end product of vertebrate anaerobic metabolism. v209 p308-309 11 July 80.  
 Shows, Thomas B. See Owerbach, David.  
 Shur, Barry D.: review of *The Biochemistry of Glycoproteins and Proteoglycans*, edited by William J. Lennarz. v209 p1010-1011 29 Aug 80.  
 Sigmundi, Ronald A. See Bernstein, Ilene L.  
 Silberglid, Robert E.; Aiello, Annette; Windsor, Donald M.: Disruptive coloration in butterflies: lack of support in *Anartia fatima*. v209 p617-619 1 Aug 80.  
 Silverman, Michael. See Simon, Melvin.  
 Silvers, Abraham. See Terman, David S.  
 Silverstein, Saul. See Pellicer, Angel.  
 Silverstone, Allen. See Dörner, Marianne H.  
 Sim, Gek Kee. See Pellicer, Angel.  
 Simon, Herbert A.: The behavioral and social sciences. v209 p72-78 4 July 80.  
 Simon, Melvin; Zieg, Janine; Silverman, Michael; Mandel, Gail; Doolittle, Russell: Phase variation: evolution of a controlling element. v209 p1370-1374 19 Sep 80.  
 Simon, Richard H.; Lovett, Edmund J., III; Tomaszek, David; Lundy, Joel: Electrical stimulation of the midbrain mediates metastatic tumor growth. v209 p1132-1133 5 Sep 80.  
 Sinclair, Rolf. See Sofaer, Anna.  
 Singer, Maxine: Recombinant DNA revisited (editorial). v209 p1317 19 Sep 80.  
 Sinha, Arabinda K. See Buchweitz, Ellen.  
 Skilling, Douglas E. See Smith, Alvin W.  
 Skirboll, Lana R. See Grace, Anthony A.  
 Slate, Doris L. See Lin, Pin-Fang.  
 Slutsky, Arthur S.; Drazin, Jeffrey M.; Ingram, Roland H., Jr.; Kamm, Roger D.; Shapiro, Ascher H.; Fredberg, Jeffrey J.; Loring, Stephen H.; Lehr, John: Effective pulmonary ventilation with small-volume oscillations at high frequency. v209 p609-611 1 Aug 80.  
 Smith, Alvin W.; Skilling, Douglas E.; Dardiri, Amid H.; Latham, Arthur B.: Calicivirus pathogenic for swine: a new serotype isolated from opaleye *Girella nigricans*, an ocean fish. v209 p940-941 22 Aug 80.  
 Smith, David W. See Streissguth, Ann Pytkowicz.  
 Smith, R. Jeffrey (news and comment): Academics fight Maryland disclosure law. v209 p377 18 July 80. Acid rain agreement. v209 p890 22 Aug 80. Congress may veto nuclear fuel shipment. v209 p374-375 18 July 80. Government says cancer rate is increasing. v209 p998-1000, 1002 29 Aug 80. A light rein falls on OSHA. v209 p567-568 1 Aug 80. New NSF directors. v209 p375 18 July 80. Nitrites: FDA beats a surprising retreat. v209 p1100-1101 5 Sep 80. Reprocessing plans may pose weapons threat. v209 p250-252 11 July 80. Soviet anthrax explanation is debunked. v209 p375 18 July 80.  
 Smith, S. L. and Codispoti, L. A.: Southwest monsoon of 1979: chemical and biological response of Somali coastal waters. v209 p597-600 1 Aug 80.  
 Snyder, Solomon H.: Brain peptides as neurotransmitters. v209 p976-983 29 Aug 80.  
 Snyderman, Ralph and Pike, Marilyn C.: N-Formylmethionyl peptide receptors on equine leukocytes initiate secretion but not chemotaxis. v209 p493-495 25 July 80.  
 Sofaer, Anna; Zinser, Volker; Sinclair, Rolf: An Anasazi solar marker? (letter). v209 p860 22 Aug 80.  
 Sokal, Michael M.: *Science* and James McKeen Cattell, 1894 to 1945. v209 p43-52 4 July 80.  
 Spanis, Curt W. See Squire, Larry R.  
 Spinrad, Bernard I.: CONAES energy scenarios (letter). v209 p636 8 Aug 80.  
 Spinrad, Susan I.: Asymmetry in facial expression (technical comment). v209 p834 15 Aug 80.  
 Squire, Larry R.; Davis, Hasker P.; Spanis, Curt W.: Neurobiology of amnesia (technical comment). v209 p836-837 15 Aug 80.  
 St. Lawrence, William; Qamar, Anthony; Moore, Johnnie; Kendrick, George: A comparison of thermal observations of Mount St. Helens before and during the first week of the first 1980 eruption. v209 p1526-1527 26 Sep 80.  
 Stackebrandt, E. See Fox, G. E.  
 Stahl, D. A. See Fox, G. E.  
 Stark, R. J. See O'Doherty, J.  
 Stemberman, Michael B. See Goldberg, Itzhak D.  
 Stern, Paula H. See Gelbard, Harris A.  
 Sternberg, Debra B. See Gold, Paul E.  
 Stillinger, Frank H.: Water revisited. v209 p451-457 25 July 80.  
 Strauss, H. William. See Khaw, Ban An.  
 Streissguth, Ann Pytkowicz; Landesman-Dwyer, Sharon; Martin, Joan C.; Smith, David W.: Teratogenic effects of alcohol in humans and laboratory animals. v209 p353-361 18 July 80.  
 Streuli, Michel; Nagata, Shigekazu; Weissmann, Charles: At least three human type  $\alpha$  interferons: structure of  $\alpha 2$ . v209 p1343-1347 19 Sep 80.  
 Studier, Martin H. See Hayatsu, Ryoichi.  
 Sturchio, Jeffrey L. See Kevles, Daniel J.  
 Summers, Robert G. See Green, Jeffrey D.  
 Sun, Marjorie (news and comment): AMA's new ethics code is major break from past. v209 p790-791 15 Aug 80. Cancer patients: Joints or THC? v209 p999 29 Aug 80. FDA caffeine decision too early, some say. v209 p1500 26 Sep 80. House votes Metric Board an extension after debate. v209 p791 15 Aug 80. Panel asks "when is a person dead?" v209 p669-670 8 Aug 80. Sawhill is named synfuels chief. v209 p1500 26 Sep 80. Science teachers to ban testing harmful to animals. v209 p791 15 Aug 80. Scientists, Congress in NIH battle. v209 p1497-1498 26 Sep 80.  
 Sures, Irmi. See Ullrich, Axel.  
 Swallow, J. C.: The Indian Ocean experiment: introduction. v209 p588 1 Aug 80.  
 Swallow, J. C. See Düng, W.  
 Sweet, Frederick; Kao, Ming-Shian; Lee, Song-Chiau D.; Hagar, Will L.; Sweet, Willem E.: Ozone selectively inhibits growth of human cancer cells. v209 p931-933 22 Aug 80.  
 Sweet, Ray. See Pellicer, Angel.  
 Sweet, Willem E. See Sweet, Frederick.  
 Swerdloff, R. S. See Heber, D.  
 Szigeti, Robert. See Masucci, Maria Grazia.

## T

- Taira, Hideharu. See Masucci, Maria Grazia.  
 Talkington, Carol. See Leder, Philip.  
 Talman, William T.; Perrone, Mark H.; Reis, Donald J.: Evidence for L-glutamate as the neurotransmitter of baroreceptor afferent nerve fibers. v209 p813-815 15 Aug 80.  
 Tanaka, Shoji. See Wallace, R. Bruce.  
 Tananbaum, Harvey. See Giacconi, Riccardo.  
 Tanner, R. S. See Fox, G. E.



- Tedeschi, Henry. See Bowman, Charles.  
Teicher, Martin H. See Pearson, David E.  
Tepperman, Barry L. and Evered, Mark D.: Gastrin injected into the lateral hypothalamus stimulates secretion of gastric acid in rats. v209 p1142-1143 5 Sep 80.  
Terhorst, Cox; van Agthoven, Andre; Reinherz, Ellis; Schlossman, Stuart: Biochemical analysis of human T lymphocyte differentiation antigens T4 and T5. v209 p520-521 25 July 80.  
Terman, David S.; Yamamoto, Tsuyoshi; Tillquist, Richard L.; Henry, Joseph F.; Cook, Gary L.; Silvers, Abraham; Shearer, William T.: Tumoricidal response induced by cytosine arabinoside after plasma perfusion over protein A. v209 p1257-1259 12 Sep 80.  
Tewksbury, J. G.; Crandall, M. S.; Crane, W. E.: Measuring the societal benefits of innovation. v209 p658-662 8 Aug 80.  
Teyler, Timothy J.; Vardaris, Richard M.; Lewis, Deborah; Rawitch, Allen B.: Gonadal steroids: effects on excitability of hippocampal pyramidal cells. v209 p1017-1019 29 Aug 80.  
Thompson, Gordon B.: review of *The Computer Age*, edited by Michael L. Dertouzos and Joel Moses. v209 p384 18 July 80.  
Thorne, Kip S. See Braginsky, Vladimir B.  
Tillquist, Richard L. See Terman, David S.  
Tjepkema, John D. and Winship, Lawrence J.: Energy requirement for nitrogen fixation in actinorhizal and legume root nodules. v209 p279-281 11 July 80.  
Tomaszek, David. See Simon, Richard H.  
Tomaszewski, J. E. See Bigger, C. A. H.  
Tomlinson, Holly R. See Uman, Myron F.  
Tonegawa, Susumu. See Maki, Richard.  
Tozer, Thomas N. See Abolin, Craig R.  
Trabalka, John R.; Eymann, L. Dean; Auerbach, Stanley I.: Analysis of the 1957-1958 Soviet nuclear accident. v209 p345-353 18 July 80.  
Tucker, Philip W.; Liu, Chih-Ping; Mushinski, J. Frederic; Blattner, Frederick R.: Mouse immunoglobulin D: messenger RNA and genomic DNA sequences. v209 p1353-1360 19 Sep 80.  
Tucker, Philip W. See Liu, Chih-Ping. See also Newell, Nanette.  
Turell, Michael J. and Hardy, James L.: Carbon dioxide sensitivity of mosquitoes infected with California encephalitis virus. v209 p1029-1030 29 Aug 80.
- ### U, V, W, Y, and Z
- Uchupi, Elazar: review of *The Origin of the Gulf of Mexico and the Early Opening of the Central North Atlantic Ocean*, edited by Rex H. Pilger, Jr. v209 p798 15 Oct 80.  
Uhm, Dae Y. See Lee, Chin O.  
Ullrich, Axel; Dull, Thomas J.; Gray, Alane; Brosius, Jürgen; Sures, Irmi: Genetic variation in the human insulin gene. v209 p612-615 1 Aug 80.  
Uman, Myron F.; James, William R.; Tomlinson, Holly R.: Oil and gas in offshore tracts: inexactness of resource estimates prior to drilling (technical comment). v209 p1048 29 Aug 80.  
Unni, C. K. See Duce, R. A.  
U'Prichard, David C. See Gelbard, Harris A.  
Utermohle, Charles J.: review of *The Human Biology of Circumpolar Populations*, edited by F. A. Milan. v209 p585-586 1 Aug 80.  
Vaida, Chris. See White, Brent C.  
Valenzuela, Pablo. See Mendez, Bernadita.  
van Agthoven, Andre. See Terhorst, Cox.  
van Andel, Tjeerd H.: review of *Alfred Wegener und die Drift der Kontinente*, by Martin Schwarzbach. v209 p681-682 8 Aug 80.  
Van Montagu, Marc. See Zambryski, Patricia.  
Van Tuyl, Harold H. See Fruchter, Jonathan S.  
Vandenbergh, John G. See Massey, Adrienne.  
Vardaris, Richard M. See Teyler, Timothy J.  
Villanueva, Antonio R. See Bassett, Everett J.  
Vorontsov, Yuri I. See Braginsky, Vladimir B.  
Vouros, Paul. See Kirby, D. P.  
Wade, Nicholas (news and comment): Aquarian candidate quizzed by laureates. v209 p1000-1001 29 Aug 80. Death at Sverdlovsk: a critical diagnosis. v209 p1501-1502 26 Sep 80. DNA: chapter of accidents at San Diego. v209 p1101-1102 5 Sep 80. Food board's fat report hits fire. v209 p248-250 11 July 80. France, Iraq, and the bomb. v209 p1001 29 Aug 80. France's all-out nuclear program takes shape. v209 p884-886, 888-889 22 Aug 80. French doctors claim Shah had wrong treatment. v209 p1000 29 Aug 80. Gene splicer goes public. v209 p1102 5 Sep 80. UCSD gene splicing incident ends unresolved. v209 p1494-1495 26 Sep 80. University and drug firm battle over billion-dollar gene. v209 p1492-1494 26 Sep 80.  
Wahle, Charles M.: Detection, pursuit, and overgrowth of tropical gorgonians by milleporid hydrocorals: Perseus and Medusa revisited. v209 p689-691 8 Aug 80.  
Walker, Don W.; Barnes, David E.; Zornetzer, Steven F.; Hunter, Bruce E.; Kubanis, Patricia: Neuronal loss in hippocampus induced by prolonged ethanol consumption in rats. v209 p711-713 8 Aug 80.  
Wallace, R. Bruce; Johnson, Peter F.; Tanaka, Shoji; Schöid, Monica; Itakura, Keiichi; Abelson, John: Directed deletion of a yeast transfer RNA intervening sequence. v209 p1396-1400 19 Sep 80.  
Waller, George R.: review of *Secondary Plant Products*, edited by E. A. Bell and B. V. Charlwood. v209 p1113 5 Sep 80.  
Walsh, John: *Science in transition, 1946 to 1962*. v209 p52-57 4 July 80. (news and comment): Carter plan: dividend for R & D. v209 p1210 12 Sep 80. Carter took lead in recruiting NSF nominee. v209 p569-570 1 Aug 80. Helsinki accords review includes science contacts. v209 p667 8 Aug 80. Hoover Institution comes on strong. v209 p368-372 18 July 80. Insiders guide to science advising. v209 p371 18 July 80. Is there a catch to innovation? v209 p1098 5 Sep 80. Law of Sea conference still in deep water. v209 p666 8 Aug 80. Looking out for science policy. v209 p783-784 15 Aug 80. Los Alamos—coming to terms with the 1980's. v209 p1211-1214 12 Sep 80. Making the multiethnicity more multiethnic. v209 p473-475 25 July 80. NSF under challenge from Congress and engineers. v209 p1499 26 Sep 80. A sentimental trip down accelerator lane. v209 p667 8 Aug 80. Storm warnings for R & D funding. v209 p252-253 11 July 80.  
Warwick, J. W. See Kaiser, M. L.  
Washburn, A. L.: Focus on polar research. v209 p643-652 8 Aug 80.  
Wasyluk, B. See Corden, J.  
Waterman, Talbot H. and Pooley, Alan S.: Crustacean eye fine structure seen with scanning electron microscopy. v209 p235-240 11 July 80.  
Watts, Ethel J. See Whittaker, A. Greenville.  
Wedge, Bryant: Conflict management (letter). v209 p544 1 Aug 80.  
Wefer, G. and Berger, W. H.: Stable isotopes in benthic foraminifera: seasonal variation in large tropical species. v209 p803-805 15 Aug 80.  
Wei, Enoch P. See Kontos, Hermes A.  
Weil, Andrew T.: Cocca, not cocaine (letter). v209 p1182 12 Sep 80; erratum, p1472 26 Sep 80.  
Weil, George L.: Nuclear power prediction (letter). v209 p544 1 Aug 80.  
Weinstein, I. B. See Backer, J. M.  
Weisblat, David A.; Zackson, Saul L.; Blair, Seth S.; Young, Janis D.: Cell lineage analysis by intracellular injection of fluorescent tracers. v209 p1538-1541 26 Sep 80.  
Weiss, Harvey R. See Buchweitz, Ellen.  
Weisskopf, Victor F.: Electron wave photos (letter). v209 p340 18 July 80.  
Weissmann, Charles. See Masucci, Maria Grazia. See also Streuli, Michel.  
Wetherbee, R.: Pit connections and translocation in red algae (technical comment). v209 p423 18 July 80.  
Wetherill, George W. and Drake, Charles L.: The earth and planetary sciences. v209 p96-104 4 July 80.  
Wharton, Brian A.: review of *Nutrition and Growth*, edited by Derrick B. Jelliffe and E. F. Patrice Jelliffe. v209 p1011-1012 29 Aug 80.  
Wheeler, Raymond M. and Salisbury, Frank B.: Gravitropism in plant stems may require ethylene. v209 p1126-1128 5 Sep 80.  
Whelan, Jean K. See Hunt, John M.  
White, Brent C.; Lincoln, Cynthia A.; Pearce, Nell W.; Reeb, Robin; Valda, Chris: Anxiety and muscle tension as consequences of caffeine withdrawal. v209 p1547-1548 26 Sep 80.  
White, Gilbert F.: Environment. v209 p183-190 4 July 80.  
Whittaker, A. Greenville; Watts, Ethel J.; Lewis, Roy S.; Anders, Edward: Carbynes: carriers of primordial noble gases in meteorites. v209 p1512-1514 26 Sep 80.  
Wiebe, Peter H. See Fairbanks, Richard G.  
Wilcox, J. M.; Hoeksema, J. T.; Scherrer, P. H.: Origin of the warped heliospheric current sheet. v209 p603-605 1 Aug 80.  
Wiley, R. Haven: review of *The Evolution of Culture in Animals*, by John Tyler Bonner. v209 p487 25 July 80.  
Willems, Jane Sisk. See Riddiough, Michael.  
Wilson, A. C. See Prager, Ellen M.  
Wilson, P. See Leetmaa, A.  
Windle, William F.: The Cayo Santiago primate colony. v209 p1486-1491 26 Sep 80.  
Windsor, Donald M. See Silberglied, Robert E.  
Winship, Lawrence J. See Tjepkema, John D.  
Witkop, Carl J., Jr. See Creel, Donnell.  
Woese, C. R. See Fox, G. E.  
Wogman, Ned S. See Fruchter, Jonathan S.  
Wolf, Barbara. See Pellicer, Angel.  
Wolfe, R. S. See Fox, G. E.  
Wolff, Kathryn: AAAS popularization of science delegation visits China (AAAS). v209 p264 11 July 80.  
Wolfe, Dael: *Science: a memoir of the 1960's and 1970's*. v209 p57-60 4 July 80.  
Wortman, Sterling: World food and nutrition: the scientific and technological base. v209 p157-164 4 July 80.  
Wrather, Joan: The AAAS sections (AAAS). v209 p581-582 1 Aug 80.  
Wright, Anthony A. See Sands, Stephen F.  
Yamamoto, Tsuyoshi. See Terman, David S.  
Yeatman, T. J. See Attallah, A. M.  
Youmans, S. J. See O'Doherty, J.  
Young, J. Gerald. See Pearson, David E.  
Young, Janis D. See Weisblat, David A.  
Young, Leo: Science and engineering (editorial). v209 p1472 26 Sep 80.  
Zablen, L. B. See Fox, G. E.  
Zackson, Saul L. See Weisblat, David A.  
Zambryski, Patricia; Holsters, Marcelle; Kruger, Kelly; Depicker, Ann; Schell, Josef; Van Montagu, Marc; Goodman, Howard M.: Tumor DNA structure in plant cells transformed by a *tumefaciens*. v209 p1385-1391 19 Sep 80.  
Zaret, Thomas M.: review of *Fisheries Ecology of Floodplain Rivers*, by Robin L. Welcomme. v209 p680-681 8 Aug 80.  
Zarifian E. See Briley, M. S.  
Zbinden, G. See Maier, P.  
Zieg, Janine. See Simon, Melvin.  
Zinkham, W. H.; Houtchens, R. A.; Caughey, W. S.: Carboxyhemoglobin levels in an unstable hemoglobin disorder (Hb Zürich): effect on phenotypic expression. v209 p406-408 18 July 80.  
Zinser, Volker. See Sofaer, Anna.  
Zoback, M. D.; Hamilton, R. M.; Crone, A. J.; Russ, D. P.; McKeown, F. A.; Brockman, S. R.: Recurrent intraplate tectonism in the New Madrid seismic zone. v209 p971-976 29 Aug 80.  
Zornetzer, Steven F. See Walker, Don W.





---

# SCIENCE

Author Index to Volume 210

October–December 1980

**Editorial Board**

RICHARD E. BALZHISER  
PETER BELL  
WALLACE S. BROECKER  
BRYCE CRAWFORD, JR.  
E. PETER GEIDUSCHEK  
EMIL W. HAURY  
SALLY G. KOHLSTEDT  
CLEMENT L. MARKERT  
MANCUR OLSON

FRANK W. PUTNAM  
PETER H. RAVEN  
BRYANT W. ROSSITER  
VERA C. RUBIN  
MAXINE F. SINGER  
WILLIAM P. SLICHTER  
PAUL E. WAGGONER  
F. KARL WILLENBROCK  
FREDERIC G. WORDEN

WILLIAM D. CAREY  
*Publisher*

HANS NUSSBAUM  
*Business Manager*

PHILIP H. ABELSON  
*Editor*

EARL J. SCHERAGO, *Advertising Director*

Published by the

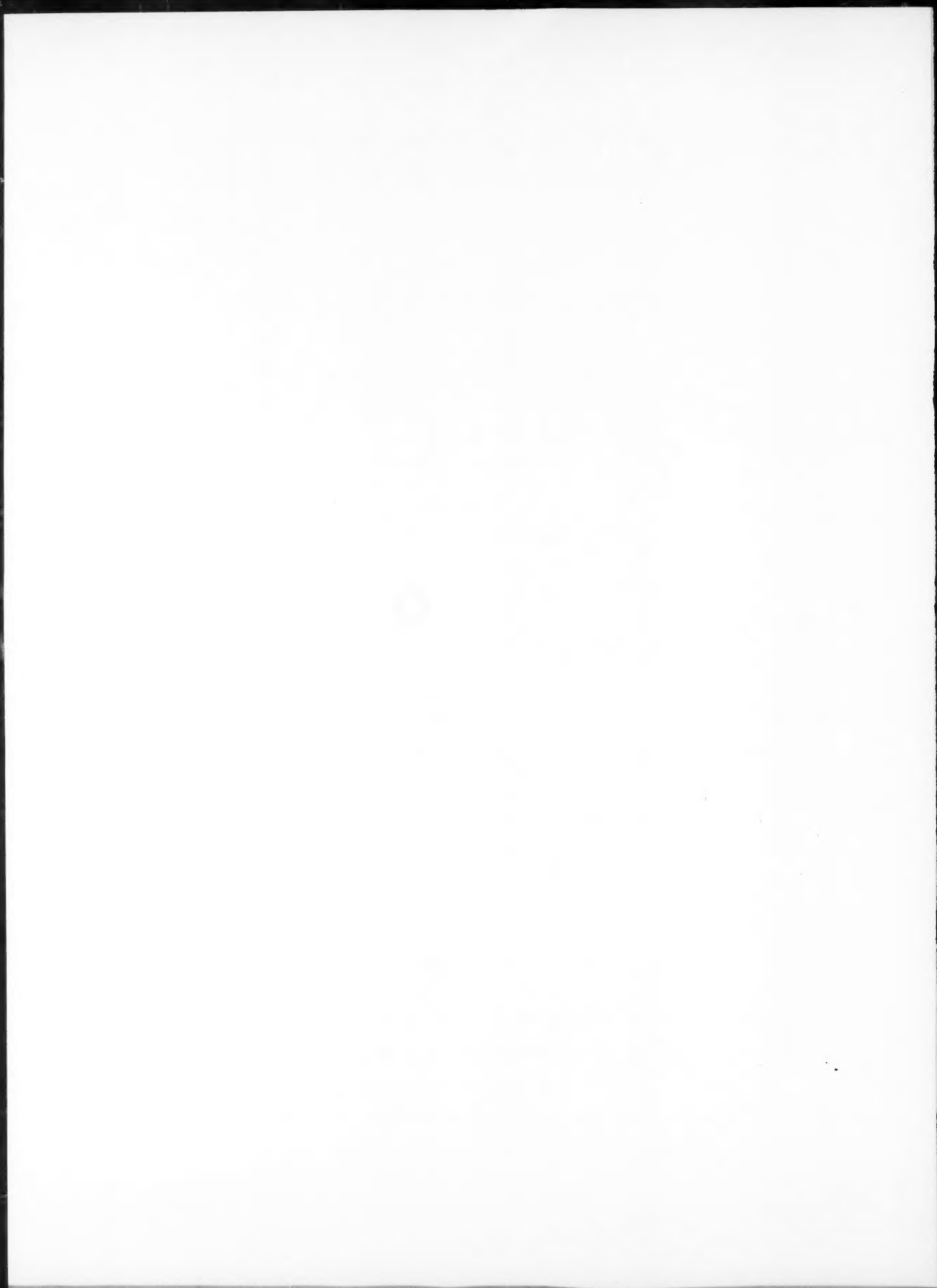
American Association for the Advancement of Science

1515 Massachusetts Avenue, NW, Washington, D.C. 20005

Printed in Richmond, Virginia, by William Byrd Press

Copyright 1980 by the American Association for the Advancement of Science

---





## A

- Abelson, Philip H. (editorials): America's vanishing lead in electronics. v210 p1079 5 Dec 80. Electronic data base. v210 p593 7 Nov 80. Electronics and scientific communication. v210 p255 17 Oct 80. Science and engineering education. v210 p665 28 Nov 80. World energy in transition. v210 p1311 19 Dec 80.
- Abugov, Robert. See Michod, Richard E.
- Adams, J. A. See Bacastow, R. B.
- Ahn, H.; Pritchep, L.; John, E. R.; Baird, H.; Trepetin, M.; Kaye, H.: Developmental equations reflect brain dysfunctions. v210 p1259-1262 12 Dec 80.
- Ahn, H. See John, E. R.
- Akil, Huda. See Walker, J. Michael.
- Alderman, Frances R. See Gitelman, Hillel J.
- Alger, B. E. and Nicoll, R. A.: Epileptiform burst after hyperpolarization: calcium-dependent potassium potential in hippocampal CA1 pyramidal cells. v210 p1122-1124 5 Dec 80.
- Alkon, Daniel L.: Membrane depolarization accumulates during acquisition of an associative behavioral change. v210 p1375-1376 19 Dec 80.
- Alkon, Daniel L. See Farley, Joseph.
- Allen, J. Norman. See Tuber, David S.
- Amado, Ralph D.: review of *Theory of Meson Interactions with Nuclei*, by Judah M. Eisenberg and Daniel S. Koltun. v210 p1241-1242 12 Dec 80.
- Amatruda, John M. See Caro, Jose F.
- Amherdt, M. See Orzi, L.
- Anderson, Douglas D.: review of *The First Americans*, edited by William S. Laughlin and Albert B. Harper. v210 p1339-1340 19 Dec 80.
- Anderson, F. See Hovis, W. A.
- Anderson, R. R. See Holick, M. F.
- Anderson, Roy M. and May, Robert M.: Infectious diseases and population cycles of forest insects. v210 p658-661 7 Nov 80.
- Andrews, Catherine C. See Ray, Thomas A.
- Ancombe, Francis J.: review of *R. A. Fisher: An Appreciation*, edited by S. E. Fienberg and D. V. Hinkley. v210 p180 10 Oct 80.
- Antelman, Seymour M. See Chiodo, Louis A.
- Aran, Jean-Marie. See Cazals, Yves.
- Armstrong, John R. See Hirst, Eric.
- Arnold, Arthur P. See Breedlove, S. Marc.
- Ashkin, A.: Applications of laser radiation pressure. v210 p1081-1088 5 Dec 80.
- Asprey, Jo-Anne M. See Carroll, Paul T.
- Austin, R. W. See Hovis, W. A.

## B

- Babb, Thomas L. See Halgren, Eric.
- Babu, P. See Siddiqui, Shahid S.
- Bacastow, R. B.; Adams, J. A.; Keeling, C. D.; Moss, D. J.; Whorf, T. P.; Wong, C. S.: Atmospheric carbon dioxide, the southern oscillation, and the weak 1975 El Niño. v210 p66-68 3 Oct 80.
- Bacchi, C. J.; Nathan, H. C.; Hutner, S. H.; McCann, P. P.; Sjoerdsma, A.: Polyamine metabolism: a potential therapeutic target in trypanosomes. v210 p332-334 17 Oct 80.
- Bachman, David S. See Tuber, David S.
- Badcock, D. See Lovegrove, W. J.
- Bailey, J. Martyn. See Whiting, John.
- Baird, H. See Ahn, H.
- Baker, E. T. See Hovis, W. A.
- Baker, R. Robin: Goal orientation by blindfolded humans after long-distance displacement: possible involvement of a magnetic sense. v210 p555-557 31 Oct 80.
- Bakke, Jerome E.; Gustafsson, Jan-Ake; Gustafsson, Bengt E.: Metabolism of propachlor by the germfree rat. v210 p433-435 24 Oct 80.
- Ball, D. See Hovis, W. A.
- Ballenger, J. C. See Lake, C. R.
- Banks, Harlan P.: review of *The Fossil Hunters*, by Henry N. Andrews. v210 p316-317 17 Oct 80.

- Bardsley, J. N.: review of *Electron-Molecule Scattering*, edited by Sanborn C. Brown. v210 p1005 28 Nov 80.
- Barlow, Robert B., Jr.; Chamberlain, Steven C.; Levinson, John Z.: *Limulus* brain modulates the structure and function of the lateral eyes. v210 p1037-1039 28 Nov 80.
- Barreiro, Barbara A. See Tilton, George R.
- Bartolome, Jorge; Huguenard, John; Slotkin, Theodore A.: Role of ornithine decarboxylase in cardiac growth and hypertrophy. v210 p793-794 14 Nov 80.
- Batsakis, John G. See Howard, Donald R.
- Baulieu, E. E. See El-Etr, M.
- Baylin, Stephen B. See Luk, Gordon D.
- Baylis, Jeffrey R.: review of *Diversity and Adaptation in Fish Behaviour*, by Miles H. A. Keenleyside. v210 p182 10 Oct 80.
- Bearden, Larry J. See Snead, O. Carter, III.
- Beatty, Jackson. See Parasuraman, Raja.
- Beaudoin, Allan R. See Lane, Geoffrey A.
- Becklin, E. E. See Sinton, W. M.
- Belser, William L., Jr. See Pitts, James N., Jr.
- Benbow, Camilla Persson and Stanley, Julian C.: Sex differences in mathematical ability: fact or artifact? v210 p1262-1264 12 Dec 80.
- Benoit, C. See Ciavatti, M.
- Bentsch, C. S. See Hovis, W. A.
- Benziman, M. See Haigler, Candace H.
- Berg, Raissa; Engels, William R.; Kreber, Robert A.: Site-specific X-chromosome rearrangements from hybrid dysgenesis in *Drosophila melanogaster*. v210 p427-429 24 Oct 80.
- Bergland, R.; Blume, H.; Hamilton, A.; Monica, P.; Paterson, R.: Adrenocorticotrophic hormone may be transported directly from the pituitary to the brain. v210 p541-543 31 Oct 80.
- Berglund, Cicely. See Nowinski, Robert.
- Bergot, B. John; Jamieson, Gene C.; Ratcliff, Milton A.; Schooley, David A.: JH zero: new naturally occurring insect juvenile hormone from developing embryos of the tobacco hornworm. v210 p336-338 17 Oct 80.
- Bernstein, Irwin. See Nowinski, Robert.
- Bertson, Gary G. See McGivern, Robert F.
- See also Tuber, David S.
- Bezilla, Robert: Cryptography research funding (letter). v210 p134, 136 10 Oct 80.
- Bhattacharya, J. and Staub, N. C.: Direct measurement of microvascular pressures in the isolated perfused dog lung. v210 p327-328 17 Oct 80.
- Biggley, William H. See Lall, Abner B.
- Birtch, A. G. See McConnachie, P. R.
- Bissell, Michael. See Diamond, Marian C.
- Black, Ira B. See Jonakait, G. Miller.
- Blackwood, M. See Lovegrove, W. J.
- Blake, Jules: OSTP: the last 4 years (letter). v210 p1199 12 Dec 80.
- Blank, I. H. See Holick, M. F.
- Blass, Elliot M. and Teicher, Martin H.: Suckling. v210 p15-22 3 Oct 80.
- Blendis, L. M. See Makowka, L.
- Blomquist, Gary J. See Howard, Ralph W.
- Blume, H. See Bergland, R.
- Blythe, William B. See Gitelman, Hillel J.
- Bodoia, Rodgers: Bad news: is it true? (letter). v210 p1301 19 Dec 80.
- Bohn, Martha C. See Jonakait, G. Miller.
- Bolaffi, Janice L.; Reichlin, Seymour; Goodman, David B. P.; Forrest, John N., Jr.: Somatostatin: occurrence in urinary bladder epithelium and renal tubules of the toad, *Bufo marinus*. v210 p644-646 7 Nov 80.
- Borowitzka, Lesley J.; Demmerle, Susanne; Mackay, Mark A.; Norton, Raymond S.: Carbon-13 nuclear magnetic resonance study of osmoregulation in a blue-green alga. v210 p650-651 7 Nov 80.
- Bothner, Michael H. and Spiker, Elliott C.: Upper Wisconsinian till recovered on the continental shelf southeast of New England. v210 p423-425 24 Oct 80.
- Bowling, A. See Lovegrove, W. J.
- Brandels, Leslie D. See Johnson, Eugene M., Jr.
- Breedlove, S. Marc and Arnold, Arthur P.: Hormone accumulation in a sexually dimorphic motor nucleus of the rat spinal cord. v210 p564-566 31 Oct 80.

- Brenner, Milton A. See Sterling, Kenneth.
- Breslow, Gail J.: Mass Media Science Fellows report on summer experiences (AAAS). v210 p629-630 7 Nov 80.
- Brewster, Frank E. See Sullivan, John L.
- Bright, William: review of *The Languages of Native America*, edited by Lyle Campbell and Marianne Mithun. v210 p315-316 17 Oct 80.
- Briley, M. See Langer, S. Z.
- Brittain, James E.: review of *A Centennial History of the American Society of Mechanical Engineers*, by Bruce Sinclair, and *Seven Decades That Changed America*, by Robert E. Steward. v210 p529-530 3 Oct 80.
- Broad, William J. (news and comment): African to head international council. v210 p168 10 Oct 80. Case of the missing milk bottles. v210 p168-169 10 Oct 80. The case of the unmentioned malignancy. v210 p1229-1230 12 Dec 80. Charges of piracy follow Alsabti. v210 p 291 17 Oct 80. Federal review of DNA research to shrink. v210 p169 10 Oct 80. Imbroglia at Yale (I): emergence of a fraud. v210 p38-41 3 Oct 80. Imbroglia at Yale (II): a top job lost. v210 p171-173 10 Oct 80. Magnet failures imperil new accelerator. v210 p875-878 21 Nov 80. Philosophers at the Pentagon. v210 p409-410, 412 24 Oct 80. Resource wars: the lure of South Africa. v210 p1099-1100 5 Dec 80. Third World science vies for petro dollars. v210 p169 10 Oct 80. Upstart television: postponing a threat. v210 p611-612, 614-615 7 Nov 80.
- Brodwick, Malcolm S. See Horn, Richard.
- Brooks, Jerry R. See Freidinger, Roger M.
- Bross, Irwin D. J.: Bladder cancer and artificial sweeteners: a methodological issue (technical comment). v210 p447 24 Oct 80.
- Brower, K. R. See Criswell, Darrell W.
- Brown, D. See John, E. R.
- Brown, G. E., Jr.: Science advice (letter). v210 p846 21 Nov 80.
- Brown, Herbert C.: From little acorns to tall oaks: from boranes through organoboranes. v210 p485-492 31 Oct 80.
- Brown, R. Malcolm, Jr. See Haigler, Candace H.
- Brune, James N. See Pakiser, L. C.
- Bruslow, Saul. See Kaiser-Kupfer, Muriel I.
- Bumb, R. R.; Crummett, W. B.; Cutie, S. S.; Gledhill, J. R.; Hummel, R. H.; Kagel, R. O.; Lamparski, L. L.; Luoma, E. V.; Miller, D. L.; Nestrick, T. J.; Shadoff, L. A.; Stehl, R. H.; Woods, J. S.: Trace chemistries of fire: a source of chlorinated dioxins. v210 p385-390 24 Oct 80.
- Bunney, Benjamin S. See Grace, Anthony A.
- Bunney, W. E. See Lake, C. R.
- Burr, Robert C. See Fanta, George F.
- Byron, Kevin S. See Sullivan, John L.

## C

- Cameraman, Arthur. See Mastropaolo, Donald.
- Cameraman, Norman. See Mastropaolo, Donald.
- Canalis, Ernesto; Peck, William A.; Raisz, Lawrence G.: Stimulation of DNA and collagen synthesis by autologous growth factor in cultured fetal rat calvaria. v210 p1021-1023 28 Nov 80.
- Cannon, Joseph G. See Goodale, David B.
- Caramazza, Alfonso. See McCloskey, Michael.
- Carey, William D. (editorials): Drift and danger in U.S.-Soviet relations. v210 p383 24 Oct 80. Science policy: new directions? v210 p849 21 Nov 80.
- Caro, Jose F. and Amatruda, John M.: Insulin receptors in hepatocytes: postreceptor events mediate down regulation. v210 p1029-1031 28 Nov 80.
- Carpenter, Graham: Epidermal growth factor

- is a major growth-promoting agent in human milk. v210 p198-199 10 Oct 80.
- Carroll, Paul T. and Aspry, Jo-Anne M.: Subcellular origin of cholinergic transmitter release from mouse brain. v210 p641-642 7 Nov 80.
- Carter, Luther J. (news and comment): Debate over waste imperils 3-Mile cleanup. v210 p166-168 10 Oct 80. Hayes makes sunshine at SERI. v210 p408-409 24 Oct 80.
- Cazals, Yves; Aran, Jean-Marie; Erre, Jean-Paul; Guilhaume, Anne: Acoustic response after total destruction of the cochlear receptor: brainstem and auditory cortex. v210 p83-86 3 Oct 80.
- Challifour, John L.: review of *Field Theoretical Methods in Particle Physics*, edited by Werner Rühl. v210 p180-181 10 Oct 80.
- Chamberlain, Steven C. See Barlow, Robert B., Jr.
- Chang, Esther H.; Ellis, Ronald W.; Scolnick, Edward M.; Lowy, Douglas R.: Transformation by cloned Harvey murine sarcoma virus DNA: efficiency increased by long terminal repeat DNA. v210 p1249-1251 12 Dec 80.
- Chaplin, E. R. See Salamy, A.
- Chen, Neal J. and Squire, Larry R.: Preserved learning and retention of pattern-analyzing skill in amnesia: dissociation of knowing how and knowing that. v210 p207-210 10 Oct 80.
- Cheney, Dorothy L. See Seyfarth, Robert M.
- Chertkoff, Jerome M.: review of *Social Exchange*, edited by Kenneth J. Gergen, Martin S. Greenberg, and Richard H. Willis. v210 p891 21 Nov 80.
- Chiodo, Louis A. See Saller, Charles F.
- Chiodo, Louis A. and Antelman, Seymour M.: Electroconvulsive shock: progressive dopamine autoreceptor subsensitivity independent of repeated treatment. v210 p799-801 14 Nov 80.
- Ciavatti, M.; Dumont, E.; Benoit, C.; Renaud, S.: Oral contraceptives, lanosterol, and platelet hyperactivity in rat. v210 p642-644 7 Nov 80.
- Clamann, H. P. See Stein, Barry E.
- Clark, Dennis K. See Gordon, Howard R. See also Hovis, W. A.
- Clark, M. B. See Holick, M. F.
- Clarke, John F.: The next step in fusion: what it is and how it is being taken. v210 p967-972 28 Nov 80.
- Cloud, Preston; Gustafson, L. B.; Watson, J. A. L.: The works of living social insects as pseudofossils and the age of the oldest known Metazoa. v210 p1013-1015 28 Nov 80.
- Cloud, Preston and Lajoie, Kenneth R.: Calcite-impregnated defoliation structures in littoral sands of Mono Lake, California. v210 p1009-1012 28 Nov 80.
- Cobb, Melanie H. See Jefferson, Douglas M.
- Cohen, Fredric S. See Zimmerberg, Joshua.
- Cohen, Peter J. See Lane, Geoffrey A.
- Condit, Carl W.: review of *The Engineering Drawings of Benjamin Henry Latrobe*, edited by Darwin H. Stepleton. v210 p56-57 3 Oct 80.
- Connor, James R., Jr. See Diamond, Marian C.
- Constanza, Robert: Embodied energy and economic valuation. v210 p1219-1224 12 Dec 80.
- Cooney, Marion. See Nowinski, Robert.
- Cooper, Robert G., Jr. See Starkey, Prentice.
- Corash, Laurence. See Piomelli, Sergio.
- Corash, Michele Beigel. See Piomelli, Sergio.
- Cort, J. H.: Arginine vasopressin in extracts of bovine pituitary (technical comment). v210 p1377 19 Dec 80.
- Cotton, Calvin U. See Harden, T. Kendall.
- Cowan, G. A. See Haxton, W. C.
- Cowgill, George L.: Bad news: is it true? (letter). v210 p1305 19 Dec 80.
- Crandall, Paul H. See Halgren, Eric.
- Crawford, Robert. See Hobart, Peter M.
- Criswell, Darrell W.; McClure, F. L.; Schafer, Rollee; Brower, K. R.: War gases as olfactory probes. v210 p425-426 24 Oct 80.
- Croce, Carlo. See Koprowski, Hilary.
- Croizier, Ralph: review of *American Science and Modern China, 1876-1936*, by Peter Buck. v210 p779 14 Nov 80.
- Cruickshank, Alexander M.: Gordon Research Conferences. v210 p449-452 24 Oct 80.
- Crummett, W. B. See Bumb, R. R.
- Culliton, Barbara J. (news and comment): Carter on continuous creation...; Reagan on intermittent astrology. v210 p35 3 Oct 80.
- Frank Press in line for academy presidency. v210 p37 3 Oct 80. Frank Press to be nominated for NAS. v210 p405-406 24 Oct 80.
- Cummins, Larry B. See Mukai, Noritsugu.
- Cunningham, Glen A. See Epstein, Emanuel.
- Currey, Bruce See Street, John M.
- Cutie, S. S. See Bumb, R. R.
- Cynader, Max. See Harris, Laurence R.
- Czech, Michael P. See Pilch, Paul F.
- Czeisler, Charles A.; Weitzman, Elliot D.; Moore-Ede, Martin C.; Zimmerman, Janet C.; Knauer, Richard S.: Human sleep: its duration and organization depend on its circadian phase. v210 p1264-1267 12 Dec 80.
- D**
- Dacey, John W. H.: Internal winds in water lilies: an adaptation for life in anaerobic sediments. v210 p1017-1019 28 Nov 80.
- Damman, Antoni W. H.: review of *Ecology of a Subarctic Mire*, edited by M. Sonesson. v210 p1118-1119 5 Dec 80.
- Darzynkiewicz, Z. See Evenson, D. P.
- Davies, John N. See Sykes, Lynn R.
- Davis, D. M. See Rockley, M. G.
- Davis, Michael J.; Gillaspie, A. Graves, Jr.; Harris, Russell W.; Lawson, Roger H.: Ratoon stunting disease of sugarcane: isolation of the causal bacterium. v210 p1365-1367 19 Dec 80.
- Davis, Wayne H.: Bad news: is it true? (letter). v210 p1304-1305 19 Dec 80.
- deBoth, N. J. See Sytkowski, Arthur J.
- de Monasterio, Francisco M. See Kaiser-Kupfer, Muriel I.
- Dee, Robert F.: A way to stimulate technological innovation (editorial). v210 p483 31 Oct 80.
- Delcomyn, Fred: Neural basis of rhythmic behavior in animals. v210 p492-498 31 Oct 80.
- Delcourt, Hazel R. and Harris, W. F.: Carbon budget of the southeastern U.S. biota: analysis of historical change in trend from source to sink. v210 p321-323 17 Oct 80.
- DelPezzo, Elizabeth M. and Hoffman, Howard S.: Attentional factors in the inhibition of a reflex by a visual stimulus. v210 p673-674 7 Nov 80.
- Demmerle, Susanne. See Borowitzka, Lesley.
- Desjardins, Claude. See Graham, J. M.
- Diamond, Marian C.; Connor, James R., Jr.; Orenberg, Elaine K.; Bissell, Michael; Yost, Michael; Krueger, Albert: Environmental influences on serotonin and cyclic nucleotides in rat cerebral cortex. v210 p652-654 7 Nov 80.
- Dickey, W. Daryl. See Horn, Richard.
- Di Ferrante, Nicola: N-Acetylglucosamine-6-sulfate sulfatase deficiency reconsidered (technical comment). v210 p448 24 Oct 80.
- Dinh, Diep T. See Reiter, Russel J.
- Doane, William M. See Fanta, George F.
- Dodson, Peter: review of *Fossils in the Making*, edited by Anna K. Behrensmeier and Andrew P. Hill. v210 p631-632 7 Nov 80.
- Drachman, Daniel B. See Pestronk, Alan.
- Dubocovich, M. L. See Langer, S. Z.
- Dumont, E. See Ciavatti, M.
- Dunham, David W.; Sofia, Sabatino; Fiala, Alan D.; Herald, David; Muller, Paul M.: Observations of a probable change in the solar radiation between 1715 and 1979. v210 p1243-1245 12 Dec 80.
- Dunwiddie, Thomas. See Sorensen, Steve.
- E**
- Edidin, Michael: review of *The Cell Surface*, edited by Stephen Subtelny and Norman K. Wessells. v210 p57-58 3 Oct 80.
- Egan, Robert W. See Kuehl, Frederick A., Jr.
- Ehrlinger, James and Forseth, Irwin: Solar tracking by plants. v210 p1094-1098 5 Dec 80.
- Ehrlich, Anne H. See Holdren, John R.
- Ehrlich, Paul R. See Holdren, John R.
- El-Etr, M.; Schorderet-Slatkine, S.; Baulieu, E. E.: The role of zinc and follicle cells in insulin-initiated meiotic maturation of *Xenopus laevis* oocytes (technical comment). v210 p929-930 21 Nov 80.
- Elias, P. See Holick, M. F.
- Elin, Ronald J.: Instrumentation in clinical chemistry. v210 p286-289 17 Oct 80.
- Ellis, Ronald W. See Chang, Esther H.
- El-Sayed, S. Z. See Hovis, W. A.
- Engels, William R. See Berg, Raissa.
- Epstein, Emanuel; Norlyn, Jack D.; Rush, Dale W.; Kingsbury, Ralph W.; Kelley, David B.; Cunningham, Glen A.; Wrona, Anne F.: Saline cultures of crops: a genetic approach. v210 p399-404 24 Oct 80.
- Epstein, Max: Endoscopy: developments in optical instrumentation. v210 p280-285 17 Oct 80.
- Erre, Jean-Paul. See Cazals, Yves.
- Evenson, D. P.; Darzynkiewicz, Z.; Melamed, M. R.: Relation of mammalian sperm chromatin heterogeneity to fertility. v210 p1131-1133 5 Dec 80.
- F**
- Falk, J. A. See Makowka, L.
- Falk, R. E. See Makowka, L.
- Fanale, Fraser P. See Nelson, Robert M.
- Fanger, Michael. See Warren, Stephen L.
- Fanta, George F.; Burr, Robert C.; Orton, William L.; Doane, William M.: Liquid-phase dehydration of aqueous ethanol-gasoline mixtures. v210 p646-647 7 Nov 80.
- Farley, Joseph and Alkon, Daniel L.: Neural organization predicts stimulus specificity for a retained associative behavioral change. v210 p1373-1375 19 Dec 80.
- Faure, H.; Fontes, J. C.; Hebrard, L.; Montelliet, J.; Pirazzoli, P. A.: Geoidal change and shore-level tilt along Holocene estuaries: Sénégal River area, West Africa. v210 p421-423 24 Oct 80.
- Ferguson, Bonnie N. See Reiter, Russel J.
- Ferguson, Marian. See Hulett, L. D., Jr.
- Fiala, Alan D. See Dunham, David W.
- Fincham, J. R. S.: review of *Genetic Recombination*, by Franklin W. Stahl. v210 p316 17 Oct 80.
- Finger, Thomas E.: Nonolfactory sensory pathway to the telecephalon in a teleost fish. v210 p671-673 7 Nov 80.
- Finkelstein, Alan. See Zimmerberg, Joshua.
- First, Melvin W.: Effects of air ions (letter). v210 p714, 716 14 Nov 80.
- Fishman, J. and Tulchinsky, D.: Suppression of prolactin secretion in normal young women by 2-hydroxyestrone. v210 p73-74 3 Oct 80.
- Flynn, Jan R. See Goodale, David B.
- Fontes, J. C. See Faure, H.
- Forrest, John N., Jr. See Bolaffi, Janice L.
- Forseth, Irwin. See Ehrlinger, James.
- Foster, Robert E.; Whalen, Christopher C.; Waxman, Stephen G.: Reorganization of the axon membrane in demyelinated peripheral nerve fibers: morphological evidence. v210 p661-663 7 Nov 80.
- Fotino, Marilena: Kidney transplants (letter). v210 p378-379 24 Oct 80.
- Fournier, Charles R. See Ritzmann, Roy E.
- Fox, C. Fred. See Wrann, Michael.
- Fox, Michael W.: Antibiotics in animal feeds (letter). v210 p376 24 Oct 80.
- Fraleigh, Robert T. See Heath, Timothy D.
- Freidinger, Roger M.; Veber, Daniel F.; Per-

- low, Debra Schwenk; Brooks, Jerry R.; Saperstein, Richard: Bioactive conformation of luteinizing hormone-releasing hormone: evidence from a conformationally constrained analog. v210 p656-658 7 Nov 80.  
 Fujii, Naoyuki. See Wakita, Hiroshi.  
 Fuller, Gary A. See Street, John M.  
 Furcinitti, Paul S. and Todd, Paul: Gamma rays and the concept of a threshold dose (technical comment). v210 p806-807 14 Nov 80.  
 Futuyma, Douglas J. and Wasserman, Steven S.: Resource concentration and herbivory in oak forests. v210 p920-922 21 Nov 80.

## G

- Gajdusek, D. C. See Sotelo, J.  
 Gambert, Steven R.; Garthwaite, Thomas L.; Pontzer, Carol H.; Hagen, Thad C.: Fasting associated with decrease in hypothalamic  $\beta$ -endorphin. v210 p1271-1272 12 Dec 80.  
 Gans, Carl and Gorniak, Gerard C.: Electromyograms are repeatable: precautions and limitations. v210 p795-797 14 Nov 80.  
 Garrison, B. See Maggiora, G. M.  
 Garthwaite, Thomas L. See Gambert, Steven R.  
 Gash, Don; Sladek, John R., Jr.; Sladek, Celia D.: Functional development of grafted vasopressin neurons. v210 p1367-1369 19 Dec 80.  
 Gattley, I. See Sinton, W. M.  
 Gaunt, Sandra L. L.: Thermoregulation in doves (Columbidae): a novel esophageal heat exchanger. v210 p445-447 24 Oct 80.  
 Geffer, Malcolm: review of *Monoclonal Antibodies*, edited by Roger H. Kennell, Thomas J. McKearn, and Kathleen B. Bechtol. v210 p317 17 Oct 80.  
 Gennaro, Joseph F., Jr. See Jefferson, Douglas M.  
 Gentry, A. H. and Lopez-Parodi, J.: Deforestation and increased flooding of the upper Amazon. v210 p1354-1356 19 Dec 80.  
 Gern, William A. See Roth, Jan J.  
 Gershon, Samuel. See Mann, J. John.  
 Giamatti, A. Bartlett: Science and the university. v210 p984-987 28 Nov 80.  
 Gibbons, Robert C. See Iwasa, Kunihiko.  
 Gibbs, C. J., Jr. See Sotelo, J.  
 Gilbert, B. K. See Rittman, E. L.  
 Gillaspie, A. Graves, Jr. See Davis, Michael J.  
 Gintzler, Alan R.: Endorphin-mediated increases in pain threshold during pregnancy. v210 p193-195 10 Oct 80.  
 Gitelman, Hillel J.; Klapper, D. G.; Alderman, Frances R.; Blythe, William B.: Arginine vasopressin in extracts of bovine pituitary (technical comment). v210 p1377 19 Dec 80.  
 Gladstone, G. Randall. See Pinto, Joseph P.  
 Glaser, Edward M.: Participatory management (letter). v210 p962 28 Nov 80.  
 Glashow, Sheldon Lee: Toward a unified theory: threads in a tapestry. v210 p1319-1323 19 Dec 80.  
 Gledhill, J. R. See Bumb, R. R.  
 Glover, Barbara. See Piomelli, Sergio.  
 Goldberg, S. J. See Stein, Barry E.  
 Golden, William T.: PSAC: reestablish it now (editorial). v210 p145 10 Oct 80.  
 Goldhaber, M.; Langacker, P.; Slansky, R.: Is the proton stable? v210 p851-860 21 Nov 80.  
 Goldstein, Avram. See Romano, Carmelo.  
 Goodale, David B.; Rusterholz, David B.; Long, John P.; Flynn, Jan R.; Walsh, Brian; Cannon, Joseph G.; Lee, Teresa: Neurochemical and behavioral evidence for a selective presynaptic dopamine receptor agonist. v210 p1141-1143 5 Dec 80.  
 Goodman, David B. P. See Bolaffi, Janice L.  
 Goodwin, Frederick K. See Lewy, Alfred J.  
 Gordon, H. R. See Hovis, W. A.  
 Gordon, Howard R.; Clark, Dennis K.; Mueller, James L.; Hovis, Warren A.: Phytoplankton pigments from the Nimbus-7 Coastal Zone

- Color Scanner: comparisons with surface measurements. v210 p63-66 3 Oct 80.  
 Gorin, Pamela D. See Johnson, Eugene M., Jr.  
 Gorniak, Gerard C. See Gans, Carl.  
 Grace, Anthony A. and Bunney, Benjamin S.: Nigral dopamine neurons: intracellular recording and identification of L-dopa injection and hisiofluorescence. v210 p654-656 7 Nov 80.  
 Graham, J. M. and Desjardins, Claude: Classical conditioning: induction of luteinizing hormone and testosterone secretion in anticipation of sexual activity. v210 p1039-1041 28 Nov 80.  
 Grant, Michael C. See Lewis, William M., Jr.  
 Green, Bert. See McCloskey, Michael.  
 Guilhaume, Anne. See Cazals, Yves.  
 Guillemot, Jean-Paul. See Harris, Laurence R.  
 Gustafson, L. B. See Cloud, Preston.  
 Gustafsson, Bengt E. See Bakke, Jerome E.  
 Gustafsson, Jan-Ake. See Bakke, Jerome E.

## H

- Hagen, Thad C. See Gambert, Steven R.  
 Hagstrom S. See Maggiora, G. M.  
 Haigler, Candace H.; Brown, R. Malcolm, Jr.; Benziman, M.: Calcofluor White ST alters the in vivo assembly of cellulose microfibrils. v210 p903-906 21 Nov 80.  
 Hakomori, Sen-itiroh. See Nowinski, Robert.  
 Halgren, Eric; Squires, Nancy K.; Wilson, Charles L.; Rohrbach, John W.; Babb, Thomas L.; Crandall, Paul H.: Endogenous potentials generated in the human hippocampal formation and amygdala by infrequent events. v210 p803-805 14 Nov 80.  
 Hamasaki, Yuhei. See Matsuzaki, Yoshikazu.  
 Hamilton, A. See Bergland, R.  
 Harden, T. Kendall; Cotton, Calvin U.; Waldo, Gary L.; Lutton, John K.; Perkins, John P.: Catecholamine-induced alteration in sedimentation behavior of membrane bound  $\beta$ -adrenergic receptors. v210 p441-443 24 Oct 80.  
 Harris, L. D. See Ritman, E. L.  
 Harris, Laurence R.; Lepore, Franco; Guillemot, Jean-Paul; Cynader, Max: Abolition of optokinetic nystagmus in the cat. v210 p91-92 3 Oct 80.  
 Harris, Russell W. See Davis, Michael J.  
 Harris, W. F. See Delcourt, Hazel R.  
 Harrison, Anna J.: Social, economic, and political leadership (editorial). v210 p93 Oct 80.  
 Harte, John. See Holdren, John R.  
 Harvey, H. R. and Williams, B. J.: Aztec arithmetic: positional notation and area calculation. v210 p499-505 31 Oct 80.  
 Haxton, W. C. and Cowan, G. A.: Solar neutrino production of long-lived isotopes and secular variations in the sun. v210 p897-899 21 Nov 80.  
 Hayden, Shawn A.; Mills, John W.; Masland, Richard M.: Acetylcholine synthesis by displaced amacrine cells. v210 p435-437 24 Oct 80.  
 Haynes, C. Vance: Geochronology of Wadi Tushka: lost tributary of the Nile. v210 p68-71 3 Oct 80.  
 Heath, Timothy D.; Fraley, Robert T.; Papahadjopoulos, Demetrios: Antibody targeting of liposomes: cell specificity obtained by conjugation of F(ab)<sub>2</sub> to vesicle surface. v210 p539-541 31 Oct 80.  
 Hebrard, L. See Faure, H.  
 Herald, David. See Dunham, David W.  
 Herman, Yvonne. See Worsley, Thomas R.  
 Herschman, Arthur: Foreign travel (AAAS). v210 p763 14 Nov 80.  
 Heusser, Calvin J. and Heusser, Linda E.: Sequence of pumiceous tephra layers and the late Quaternary environmental record near Mount St. Helens. v210 p1007-1009 28 Nov 80.  
 Heusser, Calvin J. and Streeter, S. Stephen: A temperature and precipitation record of

- the past 16,000 years in southern Chile. v210 p1345-1347 19 Dec 80.  
 Heusser, Linda E. See Heusser, Calvin J.  
 Hickey, Leo J.: Paleontologists and continental drift (letter). v210 p1200 12 Dec 80.  
 Hildebrand, R. H. See Whitcomb, S. E.  
 Hill, Lucius. See Nowinski, Robert.  
 Hirst, Eric and Armstrong, John R.: Managing state energy conservation programs: the Minnesota experience. v210 p740-744 14 Nov 80.  
 Hobart, Peter M.; Shen, Lu-Ping; Crawford, Robert; Pictet, Raymond L.; Rutter, William J.: Comparison of the nucleic acid sequence of anglerfish and mammalian insulin mRNA's from cloned cDNA's. v210 p1360-1363 19 Dec 80.  
 Hoffer, Barry. See Sorensen, Steve.  
 Hoffman, Howard S. See DelPezzo, Elizabeth.  
 Höglstedt, Göran: Evolution of clutch size in birds: adaptive variation in relation to territory quality. v210 p1148-1150 5 Dec 80.  
 Holden, Constance (news and comment): Anderson pushes conservation. v210 p165 10 Oct 80. Anderson stresses conventional arms. v210 p30 3 Oct 80. Doctors must put patients first, says editors. v210 p612-613 7 Nov 80. Innovation: Japan races ahead as U.S. falters. v210 p751-754 14 Nov 80. A new visibility for gifted children. v210 p879-880, 882 21 Nov 80. OMB offers option on A-21. v210 p612 7 Nov 80. The Reagan years: environmentalists tremble. v210 p988-989, 991 28 Nov 80. Scientist with unpopular data loses job. v210 p749-750 14 Nov 80. Turkic tribe seeks Alaskan peaks as home. v210 p613 7 Nov 80.  
 Holdren, John P.; Ehrlich, Paul R.; Ehrlich, Anne H.; Harte, John: Bad news: is it true? (letter). v210 p1296, 1298-1299, 1301 19 Dec 80.  
 Holick, M. F.; MacLaughlin, J. A.; Clark, M. B.; Holick, S. A.; Potts, J. T., Jr.; Anderson, R. R.; Blank, I. H.; Parrish, J. A.; Elias, P.: Photosynthesis of previtamin D<sub>3</sub> in human skin and the physiologic consequences. v210 p203-205 10 Oct 80.  
 Holick, S. A. See Holick, M. F.  
 Hölldobler, Bert: Canopy orientation: a new kind of orientation in ants. v210 p86-88 3 Oct 80.  
 Hölldobler, Bert and Lumsden, Charles J.: Territorial strategies in ants. v210 p732-739 14 Nov 80.  
 Holling, C. S.: review of *Evolutionary Biology of Parasites*, by Peter W. Price. v210 p1240-1241 12 Dec 80.  
 Horn, Richard; Brodwick, Malcolm S.; Dickey, W. Daryl: Asymmetry of the acetylcholine channel revealed by quaternary anesthetics. v210 p205-207 10 Oct 80.  
 Horwitz, B. A. See Yatvin, M. B.  
 Hounsfield, Godfrey N.: Computed medical imaging. v210 p22-28 3 Oct 80.  
 House, Leigh. See Sykes, Lynn R.  
 Hovis, W. A.; Clark, D. K.; Anderson, F.; Austin, R. W.; Wilson, W. H.; Baker, E. T.; Ball, D.; Gordon, H. R.; Mueller, J. L.; El-Sayed, S. Z.; Sturm, B.; Wrigley, R. C.; Yentsch, C. S.: Nimbus-7 Coastal Zone Color Scanner: system description and initial imagery. v210 p60-63 3 Oct 80.  
 Hovis, Warren A. See Gordon, Howard R.  
 Howard, Donald R. and Batsakis, John G.: Cytostructural localization of a tumor-associated antigen. v210 p201-203 10 Oct 80.  
 Howard, Ralph W.; McDaniel, C. A.; Blomquist, Gary J.: Chemical mimicry as an integrating mechanism: cuticular hydrocarbons of a termitophile and its host. v210 p431-433 24 Oct 80.  
 Howe, Henry F. and Vande Kerckhove, Gayle A.: Nutmeg dispersal by tropical birds. v210 p925-927 21 Nov 80.  
 Hranitzky, K. W.; Larson, A. D.; Ragsdale, D. W.; Siebeling, R. J.: Isolation of O1 serovars of *Vibrio cholerae* from water by serologically specific method. v210 p1025-1026 28 Nov 80.



- Huguenard, John. See Bartolome, Jorge.  
Hulet, L. D., Jr.; Weinberger, A. J.; Northcutt, K. J.; Ferguson, Marian: Chemical species in fly ash from coal-burning power plants. v210 p1356-1358 19 Dec 80.  
Hummel, R. H. See Bumb, R. R.  
Hung, P. Q. and Quigg, C.: Intermediate bosons: weak interaction couplers. v210 p1205-1211 12 Dec 80.  
Hunter, J. S.: The national system of scientific measurement. v210 p869-874 21 Nov 80.  
Hutner, S. H. See Bacchi, C. J.

## I-K

- Idso, Sherwood B.: Carbon dioxide and climate (letter). v210 p7-8 3 Oct 80.  
Ilgen, Thomas L.: review of *Seabrook and the Nuclear Regulatory Commission*, by Donald W. Stever, Jr. v210 p419-420 24 Oct 80.  
Inman, B. R.: Cryptography research funding (letter). v210 p134 10 Oct 80.  
Iwasa, Kunihiro; Tasaki, Ichiji; Gibbons, Robert C.: Swelling of nerve fibers associated with action potentials. v210 p338-339 17 Oct 80.  
Jackson, David D.; Lee, Wook B.; Liu, Chi-Ching: Aseismic uplift in southern California: an alternative interpretation. v210 p534-536 31 Oct 80.  
Jacob, Klaus H. See Sykes, Lynn R.  
Jacobson, Elliott. See Roth, Jan J.  
Jacquet, Yasuko F.: Excitatory and inhibitory effects of opiates in the rat vas deferens: a dual mechanism of opiate action. v210 p95-97 3 Oct 80.  
Jamieson, Gene C. See Bergot, B. John.  
Jarett, Leonard; Schweitzer, John B.; Smith, Robert M.: Insulin receptors: differences in structural organization on adipocyte and liver plasma membranes. v210 p1127-1128 5 Dec 80.  
Jefferson, Douglas M.; Cobb, Melanie H.; Gennaro, Joseph F., Jr.; Scott, Walter N.: Transporting renal epithelium: culture in hormonally defined serum-free medium. v210 p912-914 21 Nov 80.  
John, E. R.; Ahn, H.; Prichep, L.; Trepetin, M.; Brown, D.; Kaye, H.: Developmental equations for the electroencephalogram. v210 p1255-1258 12 Dec 80.  
John, E. R. See Ahn, H.  
Johnson, Eugene M., Jr.; Gorin, Pamela D.; Brandeis, Leslie D.; Pearson, John: Dorsal root ganglion neurons are destroyed by exposure in utero to maternal antibody to nerve growth factor. v210 p916-918 21 Nov 80.  
Johnson, Linda Y. See Reiter, Russel J.  
Johnson, Torrence V. See Nelson, Robert M.  
Johnston, Bruce F. See Sanderson, Warren.  
Jonakait, G. Miller; Bohn, Martha C.; Black, Ira B.: Maternal glucocorticoid hormones influence neurotransmitter phenotypic expression in embryos. v210 p551-553 31 Oct 80.  
Jordan, Elke: Nucleic acid sequences: data bank (letter). v210 p1074 5 Dec 80.  
Jukes, Thomas H.: Antibiotics in animal feeds (letter). v210 p376, 378 24 Oct 80. Silent nucleotide substitutions and the molecular evolutionary clock. v210 p973-978 28 Nov 80.  
Jumars, Peter A. See Taghon, Gary L.  
Kagel, R. O. See Bumb, R. R.  
Kaiser-Kupfer, Muriel I.; de Monasterio, Francisco M.; Valle, David; Walsley, MacKensie; Brusilow, Saul: Gyrate atrophy of the choroid and retina: improved visual function following reduction of plasma ornithine by diet. v210 p1128-1131 5 Dec 80.  
Kalter, S. S. See Mukai, Noritsugu.  
Kammaing, Johan: review of *Experimental Determination of Stone Tool Uses*, by Lawrence L. Keeley. v210 p58-59 3 Oct 80.  
Kaye, H. See Ahn, H. See also John, E. R.  
Keay, Colin S. L.: Anomalous sounds from the entry of meteor fireballs. v210 p11-15 3 Oct 80.  
Keeling, C. D. See Bacastow, R. B.  
Keene, Jocelyn. See Whitcomb, S. E.  
Kelley, David B. See Epstein, Emanuel.  
Kellogg, William W. See Schneider, Stephen.  
Kelly, Thomas J. and Stedman, Donald H.: Effect of urban sources on acid precipitation in the western United States (technical comment). v210 p1043 28 Nov 80.  
Kennedy, H. E.: Communicating scientific data (letter). v210 p1200 12 Dec 80.  
Kerr, Richard A. (research news): Asteroid theory of extinctions strengthened. v210 p514-517 31 Oct 80. Origins of life: new ingredients suggested. v210 p42-43 3 Oct 80. Rings within rings within rings within. . . v210 p1111-1113 5 Dec 80.  
Kingsbury, Ralph W. See Epstein, Emanuel.  
Kinsey, J. H. See Ritman, E. L.  
Kinzel, Volker; Richards, James; Stöhr, Michael: Tumor promoter TPA mimics irradiation effects on the cell cycle of HeLa cells. v210 p429-431 24 Oct 80.  
Kisslinger, Jerome B. See Sykes, Lynn R.  
Kita, Itsuro. See Wakita, Hiroshi.  
Klapper, D. G. See Gitelman, Hillel J.  
Knauer, Richard S. See Czeisler, Charles A.  
Kolata, Gina Bari (research news): The 1980 Nobel Prize in Chemistry. v210 p887-889 21 Nov 80. How safe is Bendectin? v210 p518-519 31 Oct 80. Hua Lo-Keng shapes Chinese math. v210 p413-414 24 Oct 80. Math and sex: are girls born with less ability? v210 p1234-1235 12 Dec 80. NIH panel urges fewer cesarean births. v210 p176-177 10 Oct 80. Thalassemias: models of genetic diseases. v210 p300-302 17 Oct 80. (news and comment): Study group agrees to voluntary restraints. v210 p511-512 31 Oct 80.  
Kolata, Gina Bari and Wade, Nicholas: Human gene treatment stirs new debate (news and comment). v210 p407 24 Oct 80.  
Kolthoff, I. M.: Dutch or Deutsch? (letter). v210 p590 7 Nov 80.  
Kopin, I. J. See Lake, C. R.  
Koprowski, Hilary and Croce, Carlo: Hybridomas revisited (letter). v210 p248 17 Oct 80.  
Korpmann, Ralph A. See Lincoln, Thomas L.  
Korwek, Edward L.: Science and the courts (letter). v210 p376 24 Oct 80.  
Kraft, John C.: Dutch or Deutsch (letter). v210 p590 7 Nov 80.  
Kreber, Robert A. See Berg, Raissa.  
Kreutz, W. See Yatvin, M. B.  
Krueger, Albert. See Diamond, Marian C.  
Krugmann, Hartmut and von Hippel, Frank: Radioactive waste: the problem of plutonium. v210 p319-321 17 Oct 80.  
Kuehl, Frederick A., Jr. and Egan, Robert W.: Prostaglandins, arachidonic acid, and inflammation. v210 p978-984 28 Nov 80.  
Kuhar, Michael J. See Young, W. Scott, III.  
Kuhlman, E. G.: Chestnut blight (letter). v210 p1199-1200 12 Dec 80.  
Kuntz, I.D., Jr.: review of *Protein Folding*, edited by Rainer Jaenicke. v210 p420 24 Oct 80.  
Kvenvolden, Keith A.: review of *Petroleum in the Marine Environment*, edited by Leonidas Petrakis and Fred T. Weiss. v210 p1241 12 Dec 80.  
Kyle, B. G.: High-grade fuels and biomass farming (technical comment). v210 p807-808 14 Nov 80.

## L

- Lajoie, Kenneth R. See Cloud, Preston.  
Lake, C. R.; Sternberg, D. E.; van Kammen, D. P.; Ballenger, J. C.; Ziegler, M. G.; Post, R. M.; Kopin, I. J.; Bunney, W. E.: Elevated cerebrospinal fluid norepinephrine in schizophrenics: confounding effects of treatment drugs (technical comment). v210 p97 3 Oct 80.

- Lall, Abner B.; Seliger, Howard H.; Biggley, William H.; Lloyd, James E.: Ecology of colors of firefly bioluminescence. v210 p560-562 31 Oct 80.  
Lamparski, L. L. See Bumb, R. R.  
Landas, Steve; Phillips, M. Ian; Stamler, John F.; Raizada, Mohan K.: Visualization of specific angiotensin II binding sites in the brain by fluorescent microscopy. v210 p791-793 14 Nov 80.  
Lane, Arthur L. See Nelson, Robert M.  
Lane, Geoffrey A.; Nahrwald, Michael L.; Tail, Alan R.; Taylor-Busch, Margaret; Cohen, Peter J.; Beaudoin, Allan R.: Anesthetics as teratogens: nitrous oxide is fetotoxic, xenon is not. v210 p899-901 21 Nov 80.  
Lane, Judy. See Nowinski, Robert.  
Langacker, P. See Goldhaber, M.  
Langenberg, Donald N.: Cryptography, NSF, and NSA (letter). v210 p960 28 Nov 80.  
Langer, B. See Makowka, L.  
Langer, S. Z.; Moret, C.; Raiman, R.; Dubocovich, M. L.; Briley, M.: High-affinity [<sup>3</sup>H]imipramine binding in rat hypothalamus: association with uptake of serotonin but not of norepinephrine. v210 p1133-1135 5 Dec 80.  
Larson, A. D. See Hranitzky, K. W.  
Lawson, J. See Savage-Rumbaugh, E. Sue.  
Lawson, Roger H. See Davis, Michael J.  
Lee, T. J. See Sinton, W. M.  
Lee, Teresa. See Goodale, David B.  
Lee, Wook B. See Jackson, David D.  
Lehman, Michael N.; Winans, Sarah S.; Powers, J. Bradley: Medical nucleus of the amygdala mediates chemosensory control of male hamster sexual behavior. v210 p557-560 31 Oct 80.  
Leovy, Conway B.: Carbon dioxide and climate (letter). v210 p7 3 Oct 80.  
LePage, James J.: Gamma rays and the concept of a threshold dose (technical comment). v210 p806 14 Nov 80.  
Lepore, Franco. See Harris, Laurence R.  
Levin, Bruce R. See Selander, Robert K.  
Levin, Donald A.: review of *Reproduction in Flowering Plants*. v210 p181-182 10 Oct 80.  
Levine, Adeline: review of *Behind Every Successful Man*, by Martha R. Fowles. v210 p1004-1005 28 Nov 80.  
Levinson, John Z. See Barlow, Robert B., Jr.  
Levitt, Tami A.; Loring, Ralph H.; Salpeter, Miriam M.: Neuronal control of acetylcholine receptor turnover rate at a vertebrate neuromuscular junction. v210 p550-551 31 Oct 80.  
Lewin, Roger (research news): Evolutionary theory under fire. v210 p883-887 21 Nov 80. Government/industry dispute brain tumor risk. v210 p996-997 28 Nov 80. Is your brain really necessary? v210 p1232-1234 12 Dec 80.  
Lewis, John S.: Lightning on Jupiter: rate, energetics, and effects. v210 p1351-1352 19 Dec 80.  
Lewis, William M., Jr., and Grant, Michael C.: Effect of urban sources on acid precipitation in the western United States (technical comment). v210 p1043 28 Nov 80.  
Lewy, Alfred J.; Wehr, Thomas A.; Goodwin, Frederick K.; Newsome, David A.; Markey, S. P.: Light suppresses melatonin secretion in humans. v210 p1267-1269 12 Dec 80.  
Lichtman, Jeff W. See Purves, Dale.  
Lim, Franklin and Sun, Anthony M.: Micro-encapsulated islets as bioartificial endocrine pancreas. v210 p908-910 21 Nov 80.  
Lincoln, Thomas L. and Korpmann, Ralph A.: Computers, health care, and medical information science. v210 p257-263 17 Oct 80.  
Lipsky, James J.: Elevated cerebrospinal fluid norepinephrine in schizophrenics: confounding effects of treatment drugs (technical comment). v210 p97 3 Oct 80.  
Liu, Chi-Ching. See Jackson, David D.  
Lloyd, James E.: Male *Photuris* fireflies mimic sexual signals of their females' prey. v210 p669-671 7 Nov 80. See also Lall, Abner B.

- Loew, G. See Maggiora, G. M.  
 Lokengard, David M. See Pitts, James N., Jr.  
 Long, John P. See Goodale, David B.  
 Lonsdale, C. J. See Sinton, W. M.  
 Lopez-Parodi, J. See Gentry, A. H.  
 Loring, Ralph H. See Levitt, Tami A.  
 Lostrom, Mark. See Nowinski, Robert.  
 Lovegrove, W. J.; Bowling, A.; Badcock, D.; Blackwood, M.: Specific reading disability: differences in contrast sensitivity as a function of spatial frequency. v210 p439-440 24 Oct 80.  
 Lovins, Amory B.: Energy demand forecasts (letter). v210 p480 31 Oct 80.  
 Lowy, Douglas R. See Chang, Esther H.  
 Lucas, G. B.: The war against blue mold. v210 p147-153 10 Oct 80.  
 Luk, Gordon D.; Marton, Laurence J.; Baylin, Stephen B.: Ornithine decarboxylase is important in intestinal mucosal maturation and recovery from injury in rats. v210 p195-198 10 Oct 80.  
 Lumsden, Charles J. See Hölldobler, Bert and Lumsden, Charles J.  
 Luoma, E. V. See Bumb, R. R.  
 Lutton, John K. See Harden, T. Kendall.
- M**
- Mackay, Mark A. See Borowitzka, Lesley J.  
 Mac Lane, Saunders: Total reporting for scientific work. v210 p158-163 10 Oct 80.  
 MacLaughlin, J. A. See Holick, M. F.  
 Macovski, Albert. See Popp, Richard L.  
 Maggiora, G. M.; Garrison, B.; Schatz, G.; Silver, D.; Hagstrom S.; Loew, G.: Chemistry computer center (letter). v210 p716, 719 14 Nov 80.  
 Makowka, L.; Falk, R. E.; Rotstein, L. E.; Falk, J. A.; Nossal, N.; Langer, B.; Blendis, L. M.; Phillips, M. J.: Cellular transplantation in the treatment of experimental hepatic failure. v210 p901-903 21 Nov 80.  
 Malin, Michael C. See Phillips, Roger J.  
 Mandelbaum, Richard: Cryptography, NSF, and NSA (letter). v210 p960, 962 28 Nov 80.  
 Mann, J. John; Stanley, Michael; Gershon, Samuel; Rossor, M.: Mental symptoms in Huntington's disease and a possible primary aminergic neuron lesion. v210 p1369-1371 19 Dec 80.  
 Margulis, Lynn. See Rambler, Mitchell B.  
 Markey, S. P. See Lewy, Alfred J.  
 Marler, Peter. See Seyfarth, Robert M.  
 Marshall, Eliot (news and comment): Advising Reagan on science policy. v210 p880-881 21 Nov 80. Carter and Reagan on defense: rhetoric and posturing clothe important differences. v210 p29-31 3 Oct 80. Congress begins the Republican shuffle. v210 p881 21 Nov 80. Disease center will fund Love Canal research. v210 p295 17 Oct 80. Energy crisis in the campaign. v210 p164-166 10 Oct 80. Frank Press's numbers game. v210 p406 24 Oct 80. Hiatt warns of the "last epidemic." v210 p1103 5 Dec 80. Hospitals harbor a built-in disease source. v210 p745-746, 748-749 14 Nov 80. Iraqi nuclear program halted by bombing. v210 p507-508 31 Oct 80. NRC plans to deregulate biomedical wars. v210 p1228-1229 12 Dec 80. Poland: a visitor's snapshot. v210 p292 17 Oct 80. Police science and psychics. v210 p994-995 28 Nov 80. Prizes that predict Nobel winners. v210 p294-295 17 Oct 80. Waiting for Reagan. v210 p1103 5 Dec 80. Senator Schmitt, new science power. v210 p1329-1331 19 Dec 80. Waiting for Reagan. v210 p1103 5 Dec 80. Westinghouse feels impact of declining demand. v210 p295 17 Oct 80. Will biocommerce ravage biomedicine? v210 p1102-1103 5 Dec 80.  
 Marshall, J. F. See Weisz, P. B.  
 Marston, Robert Q.: Proposed changes in biomedical funding (editorial). v210 p721 14 Nov 80.
- Marton, Laurence J. See Luk, Gordon D.  
 Marx, Jean L. (research news): 1980 Nobel Prize in Physiology or Medicine. v210 p621-623 7 Nov 80. Gene transfer moves ahead. v210 p1334-1336 19 Dec 80. Interferon Congress highlights. v210 p998 28 Nov 80. Natural killer cells help defend the body. v210 p624-626 7 Nov 80. NMR opens a new window into the body. v210 p302-305 17 Oct 80.  
 Masland, Richard M. See Hayden, Shawn A.  
 Mastropaulo, Donald; Camerman, Arthur; Camerman, Norman: Folic acid: crystal structure and implications for enzyme binding. v210 p334-336 17 Oct 80.  
 Matson, Dennis L. See Nelson, Robert M.  
 Matsuzaki, Yoshikazu; Hamasaki, Yuhei; Said, Sami I.: Vasoactive intestinal peptide: a possible transmitter of nonadrenergic relaxation of guinea pig airways. v210 p1252-1253 12 Dec 80.  
 Matthews, Alan F.: Bad news: is it true? (letter). v210 p1296 19 Dec 80.  
 Matthews, Valerie A. See Mukai, Noritsugu.  
 Maugh, Thomas H., II (research news): The 1980 Nobel Memorial Prize in Economics. v210 p758-759 14 Nov 80. Hepatitis B vaccine passes first major test. v210 p760-762 14 Nov 80. New techniques for selective immune suppression increase transplant odds. v210 p44-46 3 Oct 80. Transplants (II): altering the donor organ. v210 p177-179 10 Oct 80. Where is the hepatitis C virus? v210 p999-1000 28 Nov 80.  
 Maxworthy, Tony and Redekopp, Larry G.: Possible fluid dynamical interpretation of some reported features in the Jovian atmosphere. v210 p1350-1351 19 Dec 80.  
 May, Robert M. See Anderson, Roy M.  
 Mazue, Guy. See Williams, Gary M.  
 McCann, P. P. See Bacchi, C. J.  
 McCloskey, Michael; Caramazza, Alfonso; Green, Bert: Curvilinear motion in the absence of external forces: naive beliefs about the motion of objects. v210 p1139-1141 5 Dec 80.  
 McClure, F. L. See Criswell, Darrell W.  
 McConnachie, P. R. and Birtch, A. G.: Kidney transplants (letter). v210 p378-379 24 Oct 80.  
 McDaniel, C. A. See Howard, Ralph W.  
 McGivern, Robert F. and Berntson, Gary G.: Mediation of diurnal fluctuations in pain sensitivity in the rat by food intake patterns: reversal of naloxone. v210 p210-211 10 Oct 80.  
 McIntosh, Roderick J.: review of *Living Archaeology*, by R. A. Gould. v210 p1117-1118 5 Dec 80.  
 McIntyre, Carol J. See Sytkowski, Arthur J.  
 McQueen, Charlene A. See Williams, Gary M.  
 Meindl, James D.: Biomedical implantable microelectronics. v210 p263-267 17 Oct 80.  
 Melamed, M. R. See Evenson, D. P.  
 Mendelson, T. See Salamy, A.  
 Merzbacher, Eugen: review of *Coherence and Correlation in Atomic Collisions*, edited by H. Kleinpoppen and J. F. Williams. v210 p632-633 7 Nov 80.  
 Michod, Richard E. and Abugov, Robert: Adaptive topography in family-structured models of kin selection. v210 p667-669 7 Nov 80.  
 Miller, D. L. See Bumb, R. R.  
 Miller, R. G. See Orzi, L.  
 Mills, John W. See Hayden, Shawn A.  
 Misulovin, Ziva. See Wallace, Robin A.  
 Monica, P. See Bergland, R.  
 Montillet, J. See Faure, H.  
 Montesano, R. See Orzi, L.  
 Mooney, H. A. See Winner, W. E.  
 Moore, Robert E. and Sharma, Rameshwar K.: Endogenous substrate for cyclic AMP-dependent protein kinase in adrenocortical polyadenylated messenger ribonucleoproteins. v210 p1137-1139 5 Dec 80.  
 Moore-Ede, Martin C. See Czeisler, Charles A.  
 Moret, C. See Langer, S. Z.
- Morisawa, Masaaki and Suzuki, Keiji: Osmolality and potassium ion: their roles in initiation of sperm motility in teleosts. v210 p1145-1147 5 Dec 80.  
 Morrison, David: review of *Cosmic Landscape*, by Michael Rowan-Robinson. v210 p780-781 14 Nov 80.  
 Moss, D. J. See Bacastow, R. B.  
 Mountain, David C.: Changes in endolymphatic potential and crossed olivocochlear bundle stimulation alter cochlear mechanics. v210 p71-72 3 Oct 80.  
 Moyer, Wayne A.: Animals in the classroom (letter). v210 p8 3 Oct 80.  
 Mueller, James L. See Gordon, Howard R. See also Hovis, W. A.  
 Mukai, Noritsugu; Kalter, S. S.; Cummins, Larry B.; Matthews, Valerie A.; Nishida, Teruo; Nakajima, Takashi: Retinal tumor induced in baboon by human adenovirus 12. v210 p1023-1025 28 Nov 80.  
 Mulcahy, David L. See Ottaviano, Ercole.  
 Muller, Paul M. See Dunham, David W.  
 Mushak, Paul. See Piomelli, Sergio.
- N-Q**
- Nahrwold, Michael L. See Lane, Geoffrey A.  
 Nakajima, Takashi. See Mukai, Noritsugu.  
 Nakamura, Yuji. See Wakita, Hiroshi.  
 Nash, Douglas B. See Nelson, Robert M.  
 Nathan, H. C. See Bacchi, C. J.  
 Neet, Kenneth E. See Warren, Stephen L.  
 Nelson, Robert M.; Lane, Arthur L.; Matson, Dennis L.; Fanale, Fraser P.; Nash, Douglas B.; Johnson, Torrence V.: I<sub>0</sub>: longitudinal distribution of sulfur dioxide frost. v210 p784-786 14 Nov 80.  
 Nestrick, T. J. See Bumb, R. R.  
 Newsome, David A. See Lewy, Alfred J.  
 Nicoll, R. A. See Alger, B. E.  
 Nishida, Teruo. See Mukai, Noritsugu.  
 Nishimura, Yoshifumi and Tsuboi, Masamichi: Resonance Raman effect of carbonyl group as a probe of its  $\pi$ -electron state. v210 p1358-1360 19 Dec 80.  
 Noriyn, Jack D. See Epstein, Emanuel.  
 Northcutt, K. J. See Hulett, L. D., Jr.  
 Norton, Raymond S. See Borowitzka, Lesley J.  
 Nossal, N. See Makowka, L.  
 Notkins, Abner Louis. See Sekizawa, Tsuyoshi.  
 Notsu, Kenji. See Wakita, Hiroshi.  
 Nowell, Arthur R. M. See Taghon, Gary L.  
 Nowinski, Robert; Berglund, Cicely; Lane, Judy; Lostrom, Mark; Bernstein, Irwin; Young, William; Hakomori, Sen-itiroh; Hill, Lucius; Cooney, Marion; Human monoclonal antibody against Forssman antigen. v210 p537-539 31 Oct 80.  
 Openshaw, Harry. See Sekizawa, Tsuyoshi.  
 Orzi, L.; Miller, R. G.; Montesano, R.; Perrelet, A.; Amherdt, M.; Vassalli, P.: Opposite polarity of filipin-induced deformations in the membranes of condensing vacuoles and zymogen granules. v210 p1019-1021 28 Nov 80.  
 Orenberg, Elaine K. See Diamond, Marian C.  
 Orton, William L. See Fanta, George F.  
 Osterbrock, Donald E.: review of *Objects of High Redshift*, edited by G. O. Abell and P. J. E. Peebles. v210 p1005-1006 28 Nov 80.  
 Otis, Arthur B.: review of *Biophysics and Physiology of Carbon Dioxide*, edited by C. Bauer, G. Gros, and H. Bartels. v210 p892-893 21 Nov 80.  
 Ottaviano, Ercole; Sari-Goria, Mirella; Mulcahy, David L.: Pollen tube growth in *Zea mays*: implications for genetic improvement of crops. v210 p437-438 24 Oct 80.  
 Padgett, Richard. See Piomelli, Sergio.  
 Pakiser, L. C. and Brune, James N.: Seismic models of the root of the Sierra Nevada. v210 p1088-1094 5 Dec 80.  
 Palmer, Michael. See Sorensen, Steve.  
 Papahadjopoulos, D.: review of *Liposomes in Biological Systems*, edited by Gregory



- Gregoriadis and Anthony C. Allison. v210 p1342-1343 19 Dec 80. See also Heath, Timothy D.
- Parasuraman, Raja and Beatty, Jackson: Brain events underlying detection and recognition of weak sensory signals. v210 p80-83 3 Oct 80.
- Parrish, J. A. See Holick, M. F.
- Paterson, R. See Bergland, R.
- Paterson, W. S. B.: review of *Symposium on Glacier Beds*. v210 p1341-1342 19 Dec 80.
- Patrick, Ruth: Environmental assessment (letter). v210 p719 14 Nov 80.
- Paulson, Glenn. See Plunkett, Richard L.
- Pearson, John. See Johnson, Eugene M., Jr.
- Peck, William A. See Canalis, Ernesto.
- Perkins, John P. See Harden, T. Kendall.
- Perlow, Debra Schwenk. See Freidinger, Roger M.
- Peroutka, Stephen J. and Snyder, Solomon H.: Long-term antidepressant treatment decreases spiroperidol-labeled serotonin receptor binding. v210 p88-90 3 Oct 80.
- Perrelet, A. See Orzi, L.
- Pestronk, Alan and Drachman, Daniel B.: Lithium reduces the number of acetylcholine receptors in skeletal muscle. v210 p342-343 17 Oct 80.
- Phillips, M. Ian. See Landas, Steve.
- Phillips, M. J. See Makowka, L.
- Phillips, Roger J. and Malin, Michael C.: Ganymede: a relationship between thermal history and crater statistics. v210 p185-188 10 Oct 80.
- Piatigorsky, Joram. See Shinohara, Toshimichi.
- Pickett, Jackson B.: Nerve terminals are as metabolically different as the muscle fibers they innervate. v210 p927-928 21 Nov 80.
- Pictet, Raymond L. See Hobart, Peter M.
- Pieri, David C.: Martian valleys: morphology, distribution, age, and origin. v210 p895-897 21 Nov 80.
- Pilch, Paul F. and Czech, Michael P.: Hormone binding alters the conformation of the insulin receptor. v210 p1152-1153 5 Dec 80.
- Pinto, Joseph P.; Gladstone, G. Randall; Yung, Yuk Ling: Photochemical production of formaldehyde in Earth's primitive atmosphere. v210 p183-185 10 Oct 80.
- Piomelli, Sergio; Corash, Laurence; Corash, Michele Beigel; Seaman, Carol; Mushak, Paul; Glover, Barbara; Padgett, Richard: Blood lead concentrations in a remote Himalayan population. v210 p1135-1137 5 Dec 80.
- Pirazzoli, P. A. See Faure, H.
- Pitts, James N., Jr.; Lokensgard, David M.; Ripley, Paul S.; Van Cauwenberghe, Karel A.; Van Vaec, Luk; Shaffer, Steven D.; Thill, Alan J.; Belser, William L., Jr.: Atmospheric epoxidation of benzo[a]pyrene by ozone: formation of the metabolite benzo[a]pyrene-4,5-oxide. v210 p1347-1349 19 Dec 80.
- Plunkett, Richard L. and Paulson, Glenn: Condor conservation (letter). v210 p136 10 Oct 80.
- Pontzer, Carol H. See Gambert, Steven R.
- Popp, Richard L. and Macovski, Albert: Ultrasonic diagnostic instruments. v210 p268-273 17 Oct 80.
- Post, R. M. See Lake, C. R.
- Potts, J. T., Jr. See Holick, M. F.
- Powers, J. Bradley. See Lehman, Michael N.
- Prichap, L. See Ahn, H. See also John, E. R.
- Purtill, David T. See Sullivan, John L.
- Purves, Dale and Lichtman, Jeff W.: Elimination of synapses in the developing nervous system. v210 p153-157 10 Oct 80.
- Quigg, C. See Hung, P. Q.
- Ragsdale, D. W. See Hranitzky, K. W.
- Raisman, R. See Langer, S. Z.
- Raisz, Lawrence G. See Canalis, Ernesto.
- Raizada, Mohan K. See Landas, Steve.
- Ralph, Charles L. See Roth, Jan J.
- Ramanathan, V. See Schneider, Stephen H.
- Rambler, Mitchell B. and Margulis, Lynn: Bacterial resistance to ultraviolet irradiation under anaerobiosis: implications for pre-Phanerozoic evolution. v210 p638-640 7 Nov 80.
- Ratcliff, Milton A. See Bergot, B. John.
- Ray, Thomas A. and Andrews, Catherine C.: Antbutterflies: butterflies that follow army ants to feed on antbird droppings. v210 p1147-1148 5 Dec 80.
- Razin, Aharon and Riggs, Arthur D.: DNA methylation and gene function. v210 p604-610 7 Nov 80.
- Redekopp, Larry G. See Maxworthy, Tony.
- Reichlin, Seymour. See Bolaffi, Janice L.
- Reiter, Russel J.; Richardson, Bruce A.; Johnson, Linda Y.; Ferguson, Bonnie N.; Dinh, Diep T.: Pineal melatonin rhythm: reduction in aging Syrian hamsters. v210 p1372-1373 19 Dec 80.
- Renaud, S. See Ciavatti, M.
- Richards, James. See Kinzel, Volker.
- Richardson, Bruce A. See Reiter, Russel J.
- Richardson, H. H. See Rockley, M. G.
- Riggs, Arthur D. See Razin, Aharon.
- Ripley, Paul S. See Pitts, James N., Jr.
- Ritman, E. L.; Kinsey, J. H.; Robb, R. A.; Gilbert, B. K.; Harris, L. D.; Wood, E. H.: Three-dimensional imaging of heart, lungs, and circulation. v210 p273-280 17 Oct 80.
- Ritzmann, Roy E.; Tobias, Martha L.; Fournier, Charles R.: Flight activity initiated via giant interneurons of the cockroach: evidence for bifunctional trigger interneurons. v210 p443-445 24 Oct 80.
- Rivier, Catherine; Rivier, Jean; Vale, Wylie: Antireproductive effects of a potent gonadotropin-releasing hormone antagonist in the male rat. v210 p93-95 3 Oct 80.
- Rivier, Jean. See Rivier, Catherine.
- Robb, R. A. See Ritman, E. L.
- Robinson, Arthur L. (research news): 1980 Nobel Prize in Physics to Cronin and Fitch. v210 p619-621 7 Nov 80. Energy sweepstakes: fusion gets a chance. v210 p415-416 24 Oct 80. A long-range plan for nuclear science. v210 p1236-1237 12 Dec 80. A nuclear puzzle emerges at Berkeley. v210 p174-175 10 Oct 80. Physics journals adopt new policy. v210 p1337 19 Dec 80. (news and comment): Computer chess: Belle sweeps the board. v210 p293-294 17 Oct 80.
- Rockley, M. G.; Davis, D. M.; Richardson, H. H.: Fourier-transformed infrared photoacoustic spectroscopy of biological materials. v210 p918-920 21 Nov 80.
- Rohrbaugh, John W. See Halgren, Eric.
- Romano, Carmelo and Goldstein, Avram: Stereospecific nicotine receptors on rat brain membranes. v210 p647-650 7 Nov 80.
- Ross, Jeffrey: Credit (letter). v210 p719 14 Nov 80.
- Ross, Russell. See Wrann, Michael.
- Rossor, M. See Mann, J. John.
- Roth, E. Carol. See Roth, Jan J.
- Roth, Jan J.; Gern, William A.; Roth, E. Carol; Ralph, Charles L.; Jacobson, Elliott: Non-pineal melatonin in the alligator. v210 p548-550 31 Oct 80.
- Rotstein, L. E. See Makowka, L.
- Rowlett, Ralph M.: review of *The Prehistory of Europe*, by Patricia Phillips. v210 p530-531 31 Oct 80.
- Rubin, Vera: review of *The Sky Explored*, by Deborah J. Warner. v210 p632 7 Nov 80.
- Rumbaugh, D. M. See Savage-Rumbaugh, E. Sue.
- Rush, Dale W. See Epstein, Emanuel.
- Russell, Scott D.: Participation of male cytoplasm during gamete fusion in an angiosperm, *Plumbago zeylanica*. v210 p200-201 10 Oct 80.
- Rusterholz, David B. See Goodale, David B.
- Rutter, William J. See Hobart, Peter M.
- Rydin, Roger A.: Gamma rays and the concept of a threshold dose (technical comment). v210 p806 14 Nov 80.
- Sachs, R. K.: review of *The Universe at Large Redshifts*, edited by J. Kalckar, O. Ulbeck, and N. R. Nilsson. v210 p781 14 Nov 80.
- Said, Sami I. See Matsuzaki, Yoshikazu.
- Sakurada, Toshiro. See Sterling, Kenneth.
- Salam, Abdus: Gauge unification of fundamental forces. v210 p723-732 14 Nov 80.
- Salamy, A.; Mendelson, T.; Tooley, W. H.; Chaplin, E. R.: Differential development of brainstem potentials in healthy and high-risk infants. v210 p553-555 31 Oct 80.
- Salata, Kalman. See Whiting, John.
- Saller, Charles F. and Chiodo, Louis A.: Glucose suppresses basal firing and haloperidol-induced increases in the firing rate of central dopaminergic neurons. v210 p1269-1271 12 Dec 80.
- Salpeter, Miriam M. See Levitt, Tami A.
- Salvado, August J. See Sytkowski, Arthur J.
- Sanderson, Warren and Johnston, Bruce F.: Bad news: is it true? (letter). v210 p1303 19 Dec 80.
- Saperstein, Richard. See Freidinger, Roger M.
- Sari-Goria, Mirella. See Ottaviano, Ercole.
- Savage-Rumbaugh, E. Sue; Rumbaugh, D. M.; Smith, S. T.; Lawson, J.: Reference: the linguistic essential. v210 p922-925 21 Nov 80.
- Schafer, Rollee. See Criswell, Darrell W.
- Schatz, G. See Maggiora, G. M.
- Schneider, Stephen H.; Kellogg, William W.; Ramanathan, V.: Carbon dioxide and climate (letter). v210 p6-7 3 Oct 80.
- Schooley, David A. See Bergot, B. John.
- Schorer-Slatkine, S. See El-Etr, M.
- Schrire, Carmel: review of *The Ikung San*, by Richard Borshay Lee. v210 p890-891 21 Nov 80.
- Schwartz, Stephen M.: Access to grant applications (letter). v210 p590 7 Nov 80.
- Schwartzkroin, Philip A. and Stafstrom, Carl E.: Effects of EGTA on the calcium-activated afterhyperpolarization in hippocampal CA3 pyramidal cells. v210 p1125-1126 5 Dec 80.
- Schweitzer, John B. See Jarett, Leonard.
- Scolnick, Edward M. See Chang, Esther H.
- Scott, Walter N. See Jefferson, Douglas M.
- Seaman, Carol. See Piomelli, Sergio.
- Sekizawa, Tsuyoshi; Openshaw, Harry; Wohlenberg, Charles; Notkins, Abner Louis: Latency of herpes simplex virus in absence of neutralizing antibody: model for reactivation. v210 p1026-1028 28 Nov 80.
- Selander, Robert K. and Levin, Bruce R.: Genetic diversity and structure in *Escherichia coli* populations. v210 p545-547 31 Oct 80.
- Seliger, Howard H. See Lall, Abner B.
- Seyfarth, Robert M.; Cheney, Dorothy L.; Marler, Peter: Monkey responses to three different alarm calls: evidence of predator classification and semantic communication. v210 p801-803 14 Nov 80.
- Shadoff, L. A. See Bumb, R. R.
- Shaffer, Steven D. See Pitts, James N., Jr.
- Shapiro, Alan E.: review of *Philosophers at War*, by A. Rupert Allier. v210 p417-418 24 Oct 80.
- Sharma, Rameshwar K. See Moore, Robert E.
- Shen, Lu-Ping. See Hobart, Peter M.
- Shepard, Roger N.: Multidimensional scaling, tree-fitting, and clustering. v210 p390-398 24 Oct 80.
- Shimada, Tomiko. See Williams, Gary M.
- Shinitzky, M. See Yatvin, M. B.
- Shinohara, Toshimichi and Piatigorsky, Joram: Persistence of crystallin messenger RNA's with reduced translation in hereditary cataracts in mice. v210 p914-916 21 Nov 80.
- Shore, Bruce W.: review of *Atomic Structure*, by E. U. Condon and Halls Odabasi. v210 p531-532 31 Oct 80.
- Siddiqui, Shahid S. and Babu, P.: Genetic mosaics of *Caenorhabditis elegans*: a tissue-specific fluorescent mutant. v210 p330-332 17 Oct 80.

- Siebeling, R. J. See Hranitzky, K. W.
- Sih, Andrew: Optimal behavior: can foragers balance two conflicting demands? v210 p1041-1042 28 Nov 80.
- Silver, D. See Maggiora, G. M.
- Simon, Julian L.: Bad news: is it true? (letter). v210 p1305-1306, 1208 19 Dec 80.
- Singer, Steve: Bad news: is it true? (letter). v210 p1296 19 Dec 80.
- Sinton, W. M.; Tokunaga, A. T.; Becklin, E. E.; Gatley, I.; Lee, T. J.; Lonsdale, C. J.: Io: ground-based observations of hot spots. v210 p1015-1017 28 Nov 80.
- Sjoerdsma, A. See Bacchi, C. J.
- Sladek, Celia D. See Gash, Don.
- Sladek, John R., Jr. See Gash, Don.
- Slansky, R. See Goldhaber, M.
- Slatkin, Montgomery: review of *The Genetics of Altruism*, by Scott A. Boorman and Paul R. Levitt. v210 p633-634 7 Nov 80.
- Slavin, S. and Yatziv, S.: Correction of enzyme deficiency in mice by allogeneic bone marrow transplantation with total lymphoid irradiation. v210 p1150-1152 5 Dec 80.
- Slotkin, Theodore A. See Bartolome, Jorge.
- Smith, Georgianna M. See Sytkowski, Arthur J.
- Smith, R. Jeffrey (news and comment): Brailovsky arrested. v210 p1106 5 Dec 80. Buettner-Janusch is sentenced. v210 p993 28 Nov 80. Classified research. v210 p992-993 28 Nov 80. Drug-making topples eminent anthropologist. v210 p296-299 17 Oct 80. Legislators accept fast-paced fusion program. v210 p290-291 17 Oct 80. Love Canal reviewed. v210 p513 31 Oct 80. OSHA backs away from strict lab rules. v210 p992 28 Nov 80. Passive solar homes endorsed. v210 p993 28 Nov 80. Public scores low on environmental test. v210 p512-513 31 Oct 80. Scientists' boycott grows. v210 p513 31 Oct 80. Simon Ramo's prescriptions for innovation. v210 p1331-1332 19 Dec 80.
- Smith, Robert M. See Jarett, Leonard.
- Smith, S. T. See Savage-Rumbaugh, E. Sue.
- Snead, O. Carter, III and E. Jarden, Larry J.: Anticonvulsants specific for petit mal antagonize epileptogenic effect of leucine encephalin. v210 p1031-1033 28 Nov 80.
- Snyder, Solomon H. See Peroutka, Stephen J.
- Sofia, Sabatino. See Dunham, David W.
- Sorensen, Steve; Palmer, Michael; Dunwiddie, Thomas; Hoffer, Barry: Electro-physiological correlates of ethanol-induced sedation in differentially sensitive lines of mice. v210 p1143-1145 5 Dec 80.
- Sotelo, J.; Gibbs, C. J., Jr.; Gajdusek, D. C.: Autoantibodies against axonal neurofilaments in patients with kuru and Creutzfeldt-Jakob disease. v210 p190-193 10 Oct 80.
- Sperling, George: Bandwidth requirements for video transmission of American Sign Language and finger spelling. v210 p797-799 14 Nov 80.
- Spiker, Elliott C. See Bothner, Michael H.
- Spindel, William: Fruit fly breeding (letter). v210 p719 14 Nov 80.
- Squire, Larry R. See Chen, Neal J.
- Squires, Nancy K. See Halgren, Eric.
- Stafstrom, Carl E. See Schwartzkroin, Philip A.
- Stamler, John F. See Landas, Steve.
- Stanley, Julian C. See Benbow, Camilla Persson.
- Stanley, Michael. See Mann, J. John.
- Starkey, Prentice and Cooper, Robert G., Jr.: Perception of numbers by human infants. v210 p1033-1035 28 Nov 80.
- Slauba, N. C. See Bhattacharya, J.
- Siedman, Donald H. See Kelly, Thomas J.
- Stehl, R. H. See Bumb, R. R.
- Stein, Barry E.; Clamann, H. P.; Goldberg, S. J.: Superior colliculus: control of eye movements in neonatal kittens. v210 p78-80 3 Oct 80.
- Stellman, Steven D. See Wynder, Ernst L.
- Sterling, Kenneth; Brenner, Milton A.; Sakurada, Toshiro: Rapid effect of triiodothyronine on the mitochondrial pathways in rat liver in vivo. v210 p340-342 17 Oct 80.
- Sternberg, D. E. See Lake, C. R.
- Stetten, DeWitt, Jr.: Eradication (editorial). v210 p1203 12 Dec 80.
- Stevenson, Adlai E.: OSTP: the last 4 years (letter). v210 p1199 12 Dec 80.
- Stevenson, Robert E.: Cell line origins (letter). v210 p480 31 Oct 80.
- Street, John M.; Fuller, Gary A.; Currey, Bruce: Bad news: is it true? (letter). v210 p1301-1302 19 Dec 80.
- Streeter, S. Stephen. See Heusser, Calvin J.
- Stuiver, M. See Watts, W. A.
- Stöhr, Michael. See Kinzel, Volker.
- Sturm, B. See Hovis, W. A.
- Sullivan, John L.; Byron, Kevin S.; Brewster, Frank E.; Purtilo, David T.: Deficient natural killer cell activity in X-linked lymphoproliferative syndrome. v210 p543-545 31 Oct 80.
- Sun, Anthony M. See Lim, Franklin.
- Sun, Marjorie (news and comment): DeWitt, Livermore Lab patch up over *Progressive*. v210 p747 14 Nov 80. For future grants, ski trips are out. v210 p746-747 14 Nov 80. For NIH, business as usual. v210 p1332-1333 19 Dec 80. Institute of Medicine gets new president. v210 p616-617 7 Nov 80. Insulin wars: new advances may throw market into turbulence. v210 p1225-1228 12 Dec 80. Ion generators: old fad, new fashion. v210 p31-32 3 Oct 80. It's official: Press nominated to head NAS. v210 p747 14 Nov 80. Making interferon: gains come slowly. v210 p618 7 Nov 80. NAS hopes to meet Soviets on arms control. v210 p747 14 Nov 80. New watchdog group ponders scientific freedom. v210 p1333 19 Dec 80. NIH bills: legislators may or may not compromise. v210 p36-37 3 Oct 80. Primate center attempts bailout through Congress. v210 p1333 19 Dec 80. Too many doctors in the house. v210 p756-757 14 Nov 80.
- Suzuki, Keiji. See Morisawa, Masaaki.
- Swift, Michael: Cancer risk counseling (letter). v210 p1074 5 Dec 80.
- Sykes, Lynn R.; Kisslinger, Jerome B.; House, Leigh; Davies, John N.; Jacob, Klaus H.: Rupture zones of great earthquakes in the Alaska-Aleutian arc, 1784 to 1980. v210 p1343-1345 19 Dec 80.
- Synnott, S. P.: 1978J2: the discovery of a previously unknown Jovian satellite. v210 p786-788 14 Nov 80.
- Sytkowski, Arthur J.; Salvado, August J.; Smith, Georgianna M.; McIntyre, Carol J.; deBoth, N. J.: Erythroid differentiation of clonal Rauscher erythroleukemia cells in response to erythropoietin or dimethyl sulfoxide. v210 p74-76 3 Oct 80.

## T

- Taghon, Gary L.; Nowell, Arthur R. M.; Jumar, Peter A.: Induction of suspension feeding in spionid polychaetes by high particulate fluxes. v210 p562-564 31 Oct 80.
- Tait, Alan R. See Lane, Geoffrey A.
- Tasaki, Ichiji. See Iwasa, Kunihiko.
- Taves, Donald R.: Fluoride distribution and biological availability in the fallout from Mount St. Helens, 18 to 21 May 1980. v210 p1352-1354 19 Dec 80.
- Taylor, J. J.: Nuclear power potential (letter). v210 p590 7 Nov 80.
- Taylor, Orley R.: Africanized bees (letter). v210 p248 17 Oct 80.
- Taylor-Busch, Margaret. See Lane, Geoffrey A.
- Teicher, Martin H. See Blass, Elliot M.
- Thill, Alan L. See Pitts, James N., Jr.
- Thompson, Donald E.: review of *Inca Architecture*, by Graziano Gasparini and Luise Margolies. v210 p779-780 14 Nov 80.
- Tillman, J. Z.: Eastern geothermal resources: should we pursue them? v210 p595-600 7 Nov 80.

- Tilton, George R. and Barreiro, Barbara A.: Origin of lead in Andean calc-alkaline lavas, southern Peru. v210 p1245-1247 12 Dec 80.
- Tobias, Martha L. See Ritzmann, Roy E.
- Todd, Paul. See Furcinitti, Paul S.
- Tokunaga, A. T. See Sinton, W. M.
- Tooley, W. H. See Salamy, A.
- Trepetin, M. See Ahn, H. See also John, E. R.
- Tsui, Masamichi. See Nishimura, Yoshifumi.
- Tuber, David S.; Berntson, Gary G.; Bachman, David S.; Allen, J. Norman: Associative learning in premature hydranencephalic and normal twins. v210 p1035-1037 28 Nov 80.
- Tulchinsky, D. See Fishman, J.

## V-Z

- Vale, Wylie. See Rivier, Catherine.
- Valladares, Rogelio: IDEA (letter). v210 p846 21 Nov 80.
- Valle, David. See Kaiser-Kupfer, Muriel I.
- Van Cauwenbergh, Karel A. See Pitts, James N., Jr.
- van Kammen, D. P. See Lake, C. R.
- Van Vaeck, Luk. See Pitts, James N., Jr.
- Vande Kerckhove, Gayle A. See Howe, Henry F.
- Varner, J. E.: review of *Genoma Organization and Expression in Plants*, edited by C. J. Leaver. v210 p532-533 31 Oct 80.
- Vassalli, P. See Orci, L.
- Veber, Daniel F. See Freidinger, Roger M.
- Vinovskis, Maris A.: review of *Bastardy and Its Comparative History*, edited by Peter Laslett, Karla Oosterveen, and Richard M. Smith. v210 p1003-1004 28 Nov 80.
- Viorst, Milton: Birzeit: the search for national identity (news and comment). v210 p1101-1102 5 Dec 80.
- von Hippel, Frank. See Krugmann, Hartmut.
- Vouk, V. B.: review of *Quantitative Toxicology*, by V. A. Filov, A. A. Golubev, E. I. Liubina, and N. A. Tolokontsev. v210 p418-419 2 Oct 80.
- Wade, Michael J.: Kin selection: its components. v210 p665-667 7 Nov 80.
- Wade, Nicholas (news and comment): Gene goldrush splits Harvard, worries brokers. v210 p878-879 21 Nov 80. Gene splicing company wows Wall Street. v210 p506-507 31 Oct 80. Harvard marches up hill and down again. v210 p1104 5 Dec 80. Oil companies suppress German synfuels formula, says Hollywood. v210 p990 28 Nov 80. UCLA gene therapy racked by friendly fire. v210 p509-511 31 Oct 80. Why government should not fund science. v210 p33 3 Oct 80. See also Kolata, Gina Bari.
- Wake, David B.: review of *Phylogenetic Patterns and the Evolutionary Process*, by Niles Eldredge and Joel Cracraft. v210 p1239-1240 12 Dec 80.
- Wakita, Hiroshi; Nakamura, Yuji; Kita, Itsuro; Fujii, Naoyuki; Notsu, Kenji: Hydrogen release: new indicator of fault activity. v210 p188-190 10 Oct 80.
- Walbot, Virginia: review of *The Biochemistry of Plants*, edited by N. E. Tolbert. v210 p1119 5 Dec 80.
- Waldo, Gary L. See Harden, T. Kendall.
- Waldrop, M. Mitchell. Voyager I at Saturn (research news) v210 p1107-1111 5 Dec 80.
- Walker, J. Michael; Akil, Huda; Watson, Stanley J.: Evidence for homologous actions of pro-opiomelanocortin products. v210 p1247-1249 12 Dec 80.
- Wallace, Robin A. and Misulovin, Ziva: The role of zinc and follicle cells in insulin-initiated meiotic maturation of *Xenopus laevis* oocytes (technical comment). v210 p928-929 21 Nov 80.
- Walser, MacKensie. See Kaiser-Kupfer, Muriel I.
- Walsh, Brian. See Goodale, David B.
- Walsh, John (news and comment): A century

- after, a Huxley back at Royal Society helm. v210 p411 24 Oct 80. For the weapons labs, a countdown of regents? v210 p1230-1231 12 Dec 80. North Carolina's school for science, math all-stars. v210 p411 24 Oct 80. NSF boosts engineering, applied research. v210 p1105-1106 5 Dec 80. Palm for prescience to Wolf Foundation. v210 p411 24 Oct 80. Politics embroils NSF directorate. v210 p37 3 Oct 80. *Progressive* case fallout has a long half-life. v210 p410-411 24 Oct 80. The Reagan years: regrouping on education. v210 p991-992, 994 28 Nov 80. Science finds a place in the transition. v210 p1328-1329 19 Dec 80. Should N.Y. accredit foreign medical schools? v210 p1231 12 Dec 80. Slaughter confirmed at last. v210 p170 10 Oct 80. Trouble in science and engineering education. v210 p615-616 7 Nov 80. Universities face new accounting rules. v210 p34-36 3 Oct 80. What to do when the well runs dry. v210 p754-756 14 Nov 80.
- Wamsley, James K. *See* Young, W. Scott, III.
- Warren, Stephen L.; Fanger, Michael; Neet, Kenneth E.: Inhibition of biological activity of mouse  $\beta$ -nerve growth factor by monoclonal antibody. v210 p910-912 21 Nov 80.
- Wasserman, Steven S. *See* Futuyma, Douglas J.
- Watson, J. A. L. *See* Cloud, Preston.
- Watson, Stanley J. *See* Walker, J. Michael.
- Watts, W. A. and Stuiver, M.: Late Wisconsin climate of northern Florida and the origin of species-rich deciduous forest. v210 p325-327 17 Oct 80.
- Waxman, Stephen G. *See* Foster, Robert E.
- Wehr, Thomas A. *See* Lewy, Alfred J.
- Weil, Andrews T.: Coca, not cocoa (letter). v210 p378 24 Oct 80.
- Weinberg, Steven: Conceptual foundations of the unified theory of weak and electromagnetic interactions. v210 p1212-1218 12 Dec 80.
- Weinberger, A. J. *See* Hulet, L. D., Jr.
- Weiner, Denise: New Delhi seminar to explore roles for scientific and engineering societies in development (AAAS). v210 p55 3 Oct 80.
- Weisz, P. B. and Marshall, J. F.: High-grade fuels and biomass farming (technical comment). v210 p808 14 Nov 80.
- Weitzman, Elliot D. *See* Czeisler, Charles A.
- Wenk, Edward, Jr.: Science advice (letter). v210 p846 21 Nov 80.
- Whalen, Christopher C. *See* Foster, Robert E.
- Whitcomb, S. E.; Hildebrand, R. H.; Keene, Jocelyn: Brightness temperatures of Saturn's disk and rings at 400 and 700 micrometers. v210 p788-789 14 Nov 80.
- Whiting, John; Salata, Kalman; Bailey, J. Martyn: Aspirin: an unexpected side effect on prostacyclin synthesis in cultured vascular smooth muscle cells. v210 p663-665 7 Nov 80.
- Whittaker, Ewen A.: Lunar topography: Galileo's drawings (letter). v210 p136 10 Oct 80.
- Whorf, T. P. *See* Bacastow, R. B.
- Wickner, William: Assembly of proteins into membranes. v210 p861-868 21 Nov 80.
- Williams, B. J. *See* Harvey, H. R.
- Williams, Gary M.; Mazue, Guy; McQueen, Charlene A.; Shimada, Tomiko: Genotoxicity of the antihypertensive drugs hydralazine and dihydralazine. v210 p329-330 17 Oct 80.
- Wilson, Charles L. *See* Halgren, Eric.
- Wilson, Leslie: review of *Microtubules*, edited by K. Roberts and J. S. Hyams. v210 p57 3 Oct 80.
- Wilson, W. H. *See* Hovis, W. A.
- Winans, Sarah S. *See* Lehman, Michael N.
- Winner, W. E. and Mooney, H. A.: Responses of Hawaiian plants to volcanic sulfur dioxide: stomatal behavior and foliar injury. v210 p789-791 14 Nov 80.
- Wittig, Georg: From gylis to ylides to my idyll. v210 p600-604 7 Nov 80.
- Wohlenberg, Charles. *See* Sekizawa, Tsuyoshi.
- Wong, C. S. *See* Bacastow, R. B.
- Wood, E. H. *See* Ritman, E. L.
- Woodhead, D. S.: review of *Radiation Effects on Aquatic Organisms*, edited by Nobuo Egami. v210 p891-892 21 Nov 80.
- Woods, J. S. *See* Bumb, R. R.
- Worsley, Thomas R. and Herman, Yvonne: Episodic ice-free Arctic Ocean in Pliocene and Pleistocene time: calcareous nannofossil evidence. v210 p323-325 17 Oct 80.
- Wrann, Michael; Fox, C. Fred; Ross, Russell: Modulation of epidermal growth factor receptors on 3T3 cells by platelet-derived growth factor. v210 p1363-1365 19 Dec 80.
- Wrather, Joan: "Focus" puts science on the radio (AAAS). v210 p53-54 3 Oct 80.
- Wrigley, R. C. *See* Hovis, W. A.
- Wrona, Anne F. *See* Epstein, Emanuel.
- Wu, Francis T.: review of *Earthquake Engineering and Hazards Reduction in China*, edited by Paul C. Jennings. v210 p1340-1341 19 Dec 80.
- Wynder, Ernst L. and Stellman, Steven D.: Bladder cancer and artificial sweeteners: a methodological issue (technical comment). v210 p447-448 24 Oct 80.
- Yatvin, M. B.; Kreutz, W.; Horwitz, B. A.; Shinitzky, M.: pH-Sensitive liposomes: possible clinical implications. v210 p1253-1255 12 Dec 80.
- Yatziv, S. *See* Slavin, S.
- Yost, Michael. *See* Diamond, Marian C.
- Young, W. Scott, III; Wamsley, James K.; Zarbin, Marco A.; Kuhar, Michael J.: Opioid receptors undergo axonal flow. v210 p76-78 3 Oct 80.
- Young, William. *See* Nowinski, Robert.
- Yung, Yuk Ling. *See* Pinto, Joseph P.
- Zahn, Jean-Paul: review of *Theory of Stellar Pulsation*, by John P. Cox. v210 p1119-1120 5 Dec 80.
- Zarbin, Marco A. *See* Young, W. Scott, III.
- Ziegler, M. G. *See* Lake, C. R.
- Zimmerberg, Joshua; Cohen, Fredric S.; Finckelstein, Alan: Micromolar  $\text{Ca}^{2+}$  stimulates fusion of lipid vesicles with planar bilayers containing a calcium-binding protein. v210 p906-908 21 Nov 80.
- Zimmerman, Janet C. *See* Czeisler, Charles A.
- Zirker, J. B.: Total eclipses of the sun. v210 p1313-1319 19 Dec 80.



